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Foreword

The *OECD Journal on Budgeting* is a unique resource for policy makers, officials and researchers in public sector budgeting. Drawing on the best of the recent work of the Committee of Senior Budget Officials (SBO), as well as special contributions from finance ministries of member countries and from other practitioners, the Journal provides insights on leading-edge institutional arrangements, systems and instruments for the effective and efficient allocation and management of resources in the public sector.

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Budgeting in Romania 2022

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This journal article discusses budgeting in Romania in relation to the *OECD Recommendation on Budgetary Governance*. Over the past 20 years, Romania has undergone significant changes to its budgeting system and introduced measures to help improve budget and fiscal transparency and fiscal management and reporting. This article presents observations of Romania's budget process and identifies opportunities for improving the country's system for budgetary governance.

JEL classification: H50: Public Economics / National Government Expenditures and Related Policies / General; H61: Public Economics / National Budget, Deficit, and Debt / Budget; Budget Systems

Keywords: budgetary governance, budgeting, transparency, performance budgeting

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The report was prepared by Mr. Axel Mathot, Senior Policy Analyst, Mr. Andrew Park, Policy Analyst, Ms. Flavia Giannini, Junior Policy Analyst, Public Management and Budgeting Division, Public Governance Directorate, OECD; Mr. Arjan Vos, Head of the International Affairs Department, National Academy for Finance and Economics, Ministry of Finance, the Netherlands; and Mr. Lembit Suur, an international expert advisor.

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Executive summary

Romania has undertaken significant changes to its budgetary governance over the past decade. It has introduced legislation to improve budget transparency, created an independent fiscal institution and improved its overall budgetary management. The improvements were underpinned by initiatives that included the introduction of programme budgeting, a new Financial Management Information System (FMIS) and the transition to accrual-based accounting. In 2019, following global commitments on Agenda 2030, the Minister of Finance committed to introduce Sustainable Development Goals (SDG) to budgeting for governmental expenditures.

The government's budgetary reforms have resulted in a measurable step toward the OECD Recommendation of the Council on Budgetary Governance, for instance, by introducing medium-term planning and performance metrics. However, improvements from implementing the reforms have lagged behind the adoption of new frameworks. Budgeting on a detailed line-item basis remains in place and the potential provided by the legal basis of performance budgeting remains underutilised. Improvements should be made to operationalise budget strategy to improve decision making, resource allocation and information flows. Opportunities exist in using budgeting tools, such as spending reviews, to assess, recommend and adopt policy options by analysing the government's existing expenditure.

The role of the Parliament can be strengthened by ensuring it has the time and resources to assess and consider input from expert consultation of the budget as part of its approval process. A parliamentary budget office is a way to increase the resources available to parliamentary committees and is used widely in OECD countries. To support the role of Parliament as well as stakeholders, efforts should be made to improve and standardise the presentation of the budget.

This review found that the foundations of budget execution are functional and well established, including the use of robust cash management, day-to-day budget control, and reporting arrangements. The introduction of a new FMIS has strengthened the internal control environment and facilitated financial and performance monitoring and improved the quality of reporting. Improvements could be made by revising the process for drawing up and validating the annual execution accounts from the Ministry of Finance (MoF) by the Court of Accounts in time for budget discussions in Parliament.

This review also found that the MoF could invest more in capacity building, specifically training and guidance materials to help operationalise internal audit recommendations and the use of performance information. The emphasis on capacity building stems from the government's early stage of using performance indicators and metrics to inform decisions and to improve the delivery of public programmes and services.

Finally, this review found that budgetary governance in Romania has benefited from the separate yet complementary capacities of the MoF, the Fiscal Council and the Court of Accounts. Collectively, these institutions have introduced a medium-term perspective to budgeting and increased the focus on performance to help the government achieve its policy priorities.

The following table is a summary assessment of Romania's performance against the *OECD Recommendation of the Council on Budgetary Governance* by reference to all the budget principles covered in this report.

Table 1. Romania and OECD Principles for budgetary governance

Budget principle	Assessment	Recommendations
1. Manage budgets within clear, credible and predictable limits for fiscal policy.	Commitment to maintain ceiling levels at the MoF, and solid legal framework to sustain this effort. However, emergency ordinances can weaken compliance with fiscal objectives. The initiation of the Excessive Deficit Procedure by the European Commission is a sign that there is room for improvement in managing fiscal objectives. As such, the balance between a top-down approach (budget ceilings imposed by the MoF) and bottom-up budgeting as applied by line ministries can be improved.	- Engage with ministries before ceilings are calculated to understand programme performance, delivery, policy and expenditure developments and pressures.
2. Closely align budgets with the medium-term strategic priorities of government.	Romania has a strong legal basis for its Medium Term Expenditure Framework. However, the Medium-term Expenditure Framework is observed in form rather than applied as a tool to leverage improvements in spending quality. Furthermore, there is no clear linkage between the Medium-term Expenditure Framework and the Institutional Strategic Plans (ISPs) and there is fragmentation in the oversight between the MoF and General Secretariat.	- Improve the co-ordination between the budget process and strategic priority setting by reinforcing the co-operation between the MoF and the General Secretariat. This can be done by strengthening the co-ordination between Public Policy Units and the Budget and Execution Unit within Line Ministries.
4. Ensure that budget documents and data are open, transparent and accessible.	Budget and budgetary execution information is available publicly in an open format. However, the information is often inaccessible and difficult to understand. The granularity of appropriations and the structure of the budget documents limit meaningful discussions on public spending goals.	- Build on the initiatives of line ministries to provide supplementary summary information by providing guidance and a standardised template.
5. Provide for an inclusive, participative and realistic debate on budgetary choices.	The Parliament participates in budget discussions in a limited manner. The Parliament lacks both time and capacity to properly scrutinise the budget. The Fiscal Council contributes to the debate but has insufficient resources to implement its mandate fully. The National Action Plan for Open Government includes commitments to consult civil society during the Parliament's deliberation of the budget and on major policy issues. There is room to improve the level of consultation with civil society.	- Revise the budget process in order to provide more opportunity to the Parliament and Fiscal Council to discuss the budget. - Build technical capacity to support Parliamentarians to understand and review the budget, for instance by creating a Parliamentary Budget Office. - Provide information to Parliament in a more user-friendly way, for instance by using a programme focus and with a summary and overview of capital expenditures. - Provide necessary resources and additional space in the budget process for Fiscal Council input.
6. Present a comprehensive, accurate and reliable account of the public finances.	Accrual principles appear to be understood to a good working standard throughout the (central) government. The accounts give a comprehensive view of expenditures and revenues. There is still a parallel system in force combining FOREXEBUG with a time-adjusted cash method. However, this is a transitional arrangement. Line ministries are not always aware of the accounting rules, though there is a co-ordinated effort in this field to increase capacities.	- Continue to inform line ministries on the accounting rules and accrual approach.
7. Actively plan, manage and monitor budget execution.	A strong legal framework (Public Finance Law (PFL) 500/2002) detailing monitoring and reporting of budget execution, and allowing for necessary adjustments, as well as a treasury single account, all facilitate effective budget execution. Cash management, day-to-day budget control and reporting arrangements in Romania are well-established. The MoF prepares the annual budget execution report that is audited by the Court of Accounts. However, this report is often finalised more than a year after the budget period it reviews.	- Re-engineer the process of drawing up and validating the annual execution accounts from the MoF by the Court of Accounts in order to present them to Parliament during the following cycle of budget discussions.

Budget principle	Assessment	Recommendations
8. Ensure that performance, evaluation and value for money are integral to the budget process.	There is a strong legal basis for performance budgeting in the PFL. However, this has not yet led to an alignment of strategies, policy goals, performance measurement and budgeting. The existing performance information is under-utilised in budget discussions and organisational responsibilities for performance budgeting are unclear. There is a framework and manual for spending reviews. However, the implementation of spending reviews has been limited.	- Continue pilots on performance budgeting in selected ministries as a first step to fully integrate the benefits of performance budgeting in the budget process. - Build capacity through training and guidance to staff within the MoF on the use of performance information and data in budget negotiations to improve practice and expertise - (Re)introduce pilots for spending reviews.
9. Identify, assess and manage prudently longer-term sustainability and other fiscal risks.	In 2020, the European Commission initiated its Excessive Deficit Procedure in relation to Romania's fiscal imbalances. Inclusion of a fiscal risks section in the budget has been advanced, but progress has been slow and it is still incomplete. There is a chapter within the Fiscal Strategy outlining risks (e.g. macroeconomic risks) using various different assumptions and scenarios.	- The risk assessment in the budget documents could be focused on emergent risks such as ageing and climate change.
10. Conduct rigorous quality assurance including independent audit.	The Fiscal Council and supreme audit institution provide external oversight on budget forecasting and <i>ex post</i> reporting, respectively. The Court of Audit has started to conduct performance audits. The internal audit practices are well established, but the quality of practice can vary across the government system.	- Invest in training and guidance on internal audit and identify the areas of greatest need to conduct the training.

Figure 1. OECD Principles for budgetary governance



The OECD Recommendation on Budgetary Governance set out ten principles of good practices across the full spectrum of budget activity and aim to give practical guidance for designing, implementing and improving budget systems to make a positive impact on citizens' lives:

- **Managing budgets within clear, credible and predictable limits for fiscal policy:** It is important for governments to apply top-down budgetary management within clear fiscal policy objectives along a medium-term fiscal horizon to pursue sound and sustainable fiscal policy.
- **Closely align budgets with the medium-term strategic priorities of the government:** Develop a strong medium-term dimension in the budget process beyond the traditional annual cycle and organising and structuring budget allocations that corresponds to national objectives.
- **Design the capital budgeting framework in order to meet national development needs in a cost-effective and coherent manner:** Countries should ground capital investment plans in objective appraisal of economic capacity gaps, infrastructure development needs and sectoral and social priorities. This also includes having prudent assessments of value for money and affordability as well as developing implementation of a national framework for supporting public investments.
- **Ensure that budget documents and data are open, transparent and accessible:** It is important to provide timely, clear and factual budget reports that allows for transparency, accountability and effective oversight.
- **Provide an inclusive, participative and realistic debate on budgetary choices:** Providing opportunities for parliaments to engage with the budget process in key stages of the budget cycle and facilitating civil society engage with realistic debate on key priorities, opportunity costs and value for money.

- **Present a comprehensive, accurate and realistic account of public finances:** It is important to comprehensively account for all expenditures and revenues of the national government and presenting a full national overview of public finances.
- **Actively plan, manage and monitor the execution of the budget:** Ensuring full and faithful implementation of budget allocations by public bodies, utilising a single centrally controlled treasury fund for all public revenues and expenditures and scrutinising budget execution reports to inform future budget allocations.
- **Ensuring performance, evaluation and value for money are integral to the budget process:** Helping parliament and citizens understand what is being spent through use of performance information and evaluating and reviewing expenditure programmes in alignment with fiscal objectives and national priorities.
- **Identify, assess and manage prudently longer-term sustainability and other fiscal risks:** Applying mechanisms to promote the resilience of budgetary plans, clearly identifying and quantifying fiscal risks and publishing reports on the long-term sustainability of public finances.
- **Promote the integrity and quality of budgetary forecasts, fiscal plans and budgetary implementation through rigorous quality assurance including independent audit:** Continually investing in skills and capacity of staff and supporting independent fiscal institutions for impartial scrutiny and supreme audit institutions for safeguarding the budget process. This includes promoting the role of internal and external control systems in auditing and assessing the quality and cost-effectiveness of programmes.

The Budget formulation process

Introduction

Budget formulation in Romania is supported by a medium-term budgeting framework – the *Fiscal and Budgetary Strategy* – that outlines the government's fiscal strategy for the next three years. The framework aims to foster fiscal prudence by setting out the government's medium-term macroeconomic and fiscal forecasts and fiscal policy targets. Based on this framework, the MoF develops a budget circular – the *Framework Letter* – outlining guidance on budget preparation and spending limits with 3-year estimates to line ministries. Line ministries, in turn, submit spending proposals where they are negotiated with the MoF. Upon finalisation of all spending allocations, the MoF submits the Draft Budget to Parliament for review and approval.

Formulating the draft budget

Budget formulation in Romania is guided by the requirements of existing budget laws and includes medium-term planning information, fiscal discipline measures and political priorities. The budget documents are extensive and contains over 11 000 pages, including various appropriation and reporting tables, and annexes. Appropriation details are reconciled to the requirements of the European System Accounts.

Central Government

The MoF is responsible for the budget preparation process working in close co-ordination with line ministries to present a draft budget to Parliament.

The fiscal year in Romania runs from January to December, whereby medium-term planning starts in April, and the Budget itself is developed over the summer and presented to Parliament no later than

15 November of each year. The Public Finance Law, as amended, and the Fiscal Responsibility Law outline key stages for the budget process, outlined in Table 2 below.

Table 2. Calendar of the fiscal year (Budget formulation)

Budget task	Timetable
Setting the medium term budgetary framework	• In April: in line with European Union requirements, Romania presents a Convergence Programme Update that sets its medium and long-term fiscal objectives to maintain an economic balance. • By 1st June: release of official macroeconomic projections by National Prognosis Commission. • By 31st July: the MoF prepares the Fiscal and Budgetary Strategy for the next three years, including a macroeconomic and fiscal forecast, and sets the fiscal-budgetary framework, budgetary forecasts and fiscal-budgetary policy and submits these to the Government. • By 15th August: the Fiscal and Budgetary Strategy and the draft law for approving the limits specified in the fiscal-budgetary framework are submitted to Parliament for approval.
Developing and approving the annual budget law	• By 1st August: the MoF sends primary spending authorities a Framework Letter which specifies the macroeconomic context within which the draft budgets will be prepared, and it estimates methodologies for their calculation, as well as the expenditure limits approved by the Government. • By 1st September: primary spending authorities have to submit the proposals for the draft budget and its annexes, within the limits of the expenditure and estimates for the next 3 years. • By 30th September: budget negotiations between the MoF and primary spending authorities take place under the mediation of the Prime Minister. The MoF draws up draft budget laws and draft budgets, which it submits to the Government for first reading. • By 15th November: the Draft Budget should be submitted to Parliament.

The MoF issues a Framework Letter (budget circular) containing the macroeconomic framework on which the draft budget will be built, the methodology for developing budget estimates, budget elaboration and presentation forms as well as the spending limits imposed on main authorising officers. The MoF seeks to improve this document every year based on new requirements contained in domestic and international documents on budgetary policy and practice.

The MoF develops ceilings using macroeconomic parameters, such as inflation, which are baselined from previous years' figures. It then looks at legislation and the effects of legislative provisions and requirements on each line ministry. In this process, there are no scoping discussions with line ministries before ceilings are set. Typically, the budget or finance directorate of a line ministry co-ordinates the process in consultation with the specialised departments within the ministry and with subordinate entities outside the ministry. Resourcing negotiations commence when budget responses substantiating and elaborating line ministries' budget requests have been received by the MoF. Within the MoF, negotiations are led by the Minister/Secretary of State and by the General Directorate for Budget Programming, which has four divisions in charge of programming the budgets of line ministries. Three of these divisions oversee discrete portfolios of ministries. The fourth division oversees public investment evaluation and includes units for public investment prioritisation and spending reviews. Where a ministry makes a request for additional funding above the ceiling - such as to improve the execution of an existing programme or to initiate a new one - it provides a divergence note to the MoF which sets out a detailed case. Adjustments are made to the ceilings where a compelling case is made by a line ministry. However, there have been instances where a ministry's proposal is not accommodated and the ministry refuses to revise its budget to fit within the allocated ceiling. Ministers are involved in sorting out these impasses when they arise.

The central government issues ordinances for fiscal budgetary measures stipulating adjustments to keep the deficit at a certain level in the draft-consolidated budget using deficit estimates. In 2020, for example, the MoF had an ordinance stipulating food allowance levels to be kept in line with the previous year. In 2010, an across-the-board cut of 10% was made on expenditures for certain types of expenditures on goods and services of public institutions.

The MoF is working to get more accurate budget estimates for the out-years in the Medium-term Expenditure Framework. It hopes to anchor the out-years in the fiscal strategy, such that the pressure created by decisions and initiatives for these years can be read clearly in the context of the fiscal strategy. At the time of this review, the budget process and the focus of budget negotiations are on the budget year only.

To improve existing processes, the MoF should have earlier engagement with line ministries to improve the preparation of budget estimates. This can strengthen the *ex ante* assessment by the MoF of the fiscal impact budget measures by allowing time to assess and discuss potential deviations that would require additional funding above the ceiling. Earlier engagement in the budget process allows the MoF to play a more proactive role in managing ceiling adjustments and shaping the overall presentation of budget information in the face of fiscal pressures.

Interactions with local government

Within the context of the central budget, the MoF sends out a Framework Letter to local governments setting out the spending priorities for the budget cycle. Each municipality establishes its own strategies and priorities and prepares a budget in accordance with Law 272/2006 on *Local Public Finance*. Funds are allocated to cover the main priorities of a local government area – public utility services, objectives set in the municipality’s local development strategy and local government programmes.

Local administrative units report to the MoF’s Directorate for the Synthesis of Budget Policies. In Romania, there are 3 228 administrative units across 41 counties, 103 cities, 217 towns, 2 861 communes and 6 districts in the city of Bucharest. Each of the 41 counties has an economic department to oversee the local government administrative units in their area.

Local government budgets are comprised of both central government transfers and local revenues. Around 25% of the local government budget is sourced from allocations by the central government and focussed on specific activities such as schools and social assistance. There is little flexibility in the formulae used for these allocations, which are often based on rolling historical amounts. The remaining 75% of the local budget comes from local authorities and revenues generated by economic activity in the region, including 60% of the VAT collected within the municipality and a portion from income and company taxes. Municipalities allocate their planned budgets within assigned categories by the central government. Budget requests from municipalities have to be presented by the end of January of the budget year after the budget for that year has been passed by the Parliament. Planned budgets are based on past budgets, updated for local strategies with projections for the out years.

In the past, there have been budget overruns and accumulation of unspent funds by local entities. Due to the multitude of local entities, it is difficult for the central government to control budget expenditures for local governments. In 2011, the Local Public Finance Law was changed to prevent overly optimistic forecasts of own revenues, whereby budgets are constructed based on realised revenues from previous years.

Macroeconomic and revenue forecasting

Macroeconomic projections on growth and inflation are prepared by the General Secretariat of the Government which is responsible for supporting the Prime Minister in policy preparation and the strategic planning of the government. By law, the forecasts have to be compared with outturn results and real growth and, for now, there does not appear to be any systemic bias against this criterion. However, the Romania Fiscal Council found in 2021 that projections have been more optimistic than the market consensus. The MoF is responsible for fiscal forecasts. This information is prepared on a multiannual basis (the budget year plus three forward years). It includes projected revenues and expenditures, European funds, as well as deficit levels (cash and structural). However, the focus is very much on the forthcoming budget year.

The budget documents present estimates for the budget year and the next three years, in accordance with the internal regulatory framework for public finances. There are four key macro-level fiscal forecast and budget reports issued each year (Box 1). These key reports are well timed and positioned in the fiscal and budget management cycle. Overall, the quality of their analysis is well-regarded. However, the guideposts that they set for budget policy and spending decisions have not been followed on a number of recent occasions.

Overall, macroeconomic and revenue forecasting in Romania is well-managed. The MoF has taken steps to strengthen its medium-term perspective for budgetary purposes by introducing a Medium-term Expenditure Framework to improve fiscal planning. The MoF acknowledges there is scope to improve the accuracy of forward year estimates and to anchor these into the fiscal strategy. Its focus is to make explicit the multi-year effects of expenditure decisions for the purposes of planning and reporting, e.g. the 2020 changes to the pension law, which could reduce significantly the budget envelope over the coming years.

Box 1. Fiscal forecasting in Romania

The fiscal forecasting has several key moments:

- A Convergence Programme Update, required under European Commission regulations, is released in April each year, providing a fiscal overview for the upcoming four years.
- The Fiscal and Budgetary Strategy is released in July each year, laying out the government's fiscal strategy for the next three years, including a macroeconomic forecast, fiscal policy targets and forecasts, and a statement of responsibility.
- A Half-year report is provided in July on the economic and budgetary situation, effectively a report card on the current (budget) year. It reviews the macroeconomic framework, gives the latest data on macroeconomic indicators and provides an assessment of the impacts of these on fiscal targets and measures to be taken to correct such impacts (informing any required budget rectifications).
- The Report on the Macroeconomic Situation and Forecasts, which accompanies the budget in November each year, provides updated fiscal forecasts for the budget year and following three years.

The Romanian Fiscal Strategy outlines risks (e.g. macroeconomic risks) accounting for different assumptions and scenarios. The risks are associated with public debt and interest payment derived from macroeconomic indicators and variables – each outlining the challenges of long-term sustainability of public finances. The risks related to natural disasters are also presented, but the estimating of their potential budgetary impact needs to be improved.

Romania can build on existing assessments by including emergent risks such as ageing and climate change in the risk assessment sections of the budget documents. As demographic challenges and risks of climate change adaptation and mitigation become growing policy issues in Romania and in Europe, incorporating emergent risks can help to inform key stakeholders in policy decisions over the medium and long-term. For example, inclusion of climate change risks can help inform policy debates as Romania looks to decarbonise its energy sector under the framework of the European Green Deal.

Structure of the budget

The MoF issues an order for budgetary classification (i.e. Classification of the functions of Government, COFOG I) which is used to structure the general expenditure tables of the budget. The budget includes detailed information organised around economic and functional classifications with annexes on specific

topics including programme information and specific funding sources (e.g. European Union funding). The budget is formally comprised of two budget laws – the state budget act and the state social security act (public pensions and unemployment benefits).

Budget tables are built around economic and functional classifications, with sub-sections of titles and specific line items. However, the presentation of these classifications can make reading the budget difficult to follow, with hundreds to thousands of lines under economic and functional classifications. For example, there are over 6 000 line items relating to schools in the budget.

Programmatic information is not consistently presented across most ministries. Since 2005, programme budgets have appeared in an annex to the budgets of line ministries. However, the annexes presented have been inconsistent and often varied by ministry. The annexes for the Ministries of Defence and Health show a continuity of programme structures linked to national priorities and existing laws. For other ministries, programmes are adapted and altered on each change in Government.

The current presentation of information should be improved. The budget is presented on a line-item basis with no uniform provision of programme information. Improving how the budget is presented could help position the Parliament to undertake informed scrutiny and make well-grounded decisions on the budget. Specifically, improvements can be made to simplify how the budget is presented in accordance with the objectives and priorities of the government and key areas of expenditure activity. For example, ministries developed separate ‘summary documents’ of their own budgets to simplify the complexity of technical information presented in the budget. Though the MoF presents the budget in a standard format (as required by Law 2002/500), it may be a good practice for a set of additional documents to summarise and focus the detailed information that Parliament is given. However, at the time of this review, there is no formal guidance on what this should look like, leading to differences in how ministries present their summary documents.

To limit the administrative burden on line ministry staff and to provide a standardised set of information to Parliament, the MoF should provide clear guidance in the preparation of summary documents. Clearer guidance can help to ensure information presented by line ministries to key stakeholders remain consistent and comparable to inform policy discussions and to reduce the administrative burden of duplicating existing reporting processes. Furthermore, this can reduce the current time and resources spent by line ministries in establishing their own guidance of how to present additional budget information.

Setting overall priorities

Efforts have been made to create closer alignment between the budget and government strategies. Building on a framework of legal requirements derived from international best practices, Romania has sought to introduce programme and performance budgeting over the past ten years.

Programme and performance budgeting

Programme budgeting was introduced by legislation in 2002 and has been practiced by line ministries since then. Programme budgets have appeared as an annex to the appropriations of all line ministries since 2005. Programmes can be established by legislation or administratively. Currently, programme budgets are correlated to the cash budget through functional and economic classifications. Funding streams feed into programmes at different classification levels, depending on the history of the programme and the activities it covers. Performance measures reflected in Institutional Strategic Plans (ISPs), which identifies the strategic priorities for each line ministry, and the Budget annex are often not aligned. For example, the Institutional Strategic Plan of the Ministry of Agriculture and Rural Development has five programmes, 15 components and 93 results areas, while the Ministry reports on different performance measures against two programmes in the Budget annex. The Institutional Strategic Plan measures are of

different degrees of relevance; not all are based on reliable data or well aligned with objectives. As such, tracking expenditures to programmes has proven to be difficult.

Performance indicators are developed by line ministries and are not always managed actively with no process for central review or quality control. Additionally, programmes are not central to the funding negotiations that take place between the MoF and line ministries - constructing the programme budget annex is often the last step in the budget preparation work of a line ministry.

The country's separate management of European Union funds highlight that it is possible to manage programme-based budgeting within the Romanian context. Separate from the programme-based budgeting approach led and managed by the MoF, the European Commission requires the regular reporting of performance indicators, milestone information and closure reports for projects that receive European Union funding. The reporting disciplines around European Union funding flows, through the Ministry of Investment and European Projects, are strong and are supplemented by six-monthly audit missions and close monitoring of relevant reports by the Romanian Court of Accounts. The consequences for the recipients of European Union funding of having a project go off track are real – funding is lost if it is not spent in accordance with the agreed timetable for execution.

Romania should improve its performance monitoring by providing guidance to line ministries on how to set reliable and verifiable performance metrics to strengthen the quality and use of performance information in the budget process in alignment with the strategies and priorities of the government. In line with observations on the implementation of programme and performance budgeting, line ministries place a greater focus on cash execution than on the outputs and outcomes of budgetary programmes. If the MoF and Parliament were to give closer attention to performance and results information during the budget process, this would provide an incentive to ministries to improve on performance monitoring and the quality of indicators and metrics used. Further improvements should be made to enhance the quality of public sector performance data and information at a systems level. The current body of technical support information is limited. Specifically, further guidance is needed on how to set reliable and verifiable metrics, when to mix quantitative data with qualitative methodologies and conduct systematic *ex post* evaluations for completed projects to inform decisions. This can be facilitated through engagement and ownership by the senior management.

In addition, efforts should be made to improve the co-ordination between the General Secretariat and the MoF to align fiscal management and resourcing with strategic planning. Strategic planning, in the form of Institutional Strategic Plans, and medium-term budgeting operate under separate processes. An integrated approach co-ordinated between both institutions can help to further align spending to the strategic priorities of the government.

Romania underwent a slow but gradual reform process over the last 20 years. As such, programme and performance budgeting have not been widely adopted within the public administration which has led to limited momentum and interest in fully adopting these measures within the budget process. A shift in the culture of government institutions may be needed to achieve this. Closer co-operation between the Ministry of Investment and European Projects and the MoF can facilitate exchanges of knowledge, good practice and lessons in the management of programme-based budgeting through joint trainings and workshops. A separate but parallel implementation of programme budgeting at the Ministry of Investments and European Projects provides scope for the MoF to exchange knowledge and good practice within the Romanian context to improve implementation progress. Though likely limited by institutional constraints, “seconding” relevant staff to the Ministry of Investment and European Projects for short periods of time can facilitate exchanges and help to develop capacity on the regular use of programme and performance budgeting methods. In this process, as key budget staff within the MoF and line ministries rotate, norms can be established and shaped around the expectation of the efficient use of public funds across the government.

Spending reviews

The first systematic spending reviews in Romania started in 2016, with three pilot reviews in the transport, health and education sectors. These pilot reviews were largely focussed on validating a review methodology. A ministerial committee, chaired by the Prime Minister, was established in 2017 to identify and determine the sectors to be reviewed and to take decisions on the implementation of the results of the reviews. A memorandum was to be issued at the end of each year outlining the selected review topics and a timetable. The reviews were to be conducted by a Spending Review Unit in the MoF, with support from working groups of experts for each area under review. Their findings were to be signed-off jointly by the Minister of Finance and the minister responsible for the area under review and injected into the budget. However, since then, only limited spending reviews have taken place.

Consideration should be made to put the original design of spending reviews into active practice. Opportunities exist for spending reviews to provide a systematic way for identify offsets and savings to fund new policy proposals, improve the budget bottom line, increase the effectiveness of the expenditures and facilitate the alignment of the expenditures with government priorities. Particular attention should be made on identifying how spending reviews can be linked to the budget process.

Role of Parliament and the Fiscal Council

Introduction

Parliament scrutinises, amends and enacts the annual budget laws and any laws of rectification developed by the government. The Parliament's role in budgeting is set out in the Constitution and the Public Finance Law 500/2002. The two chambers of the Romanian Parliament – the *Camera Deputatilor* (Chamber of Deputies) and the *Senat* (Senate) – have equal powers in budgetary matters, and each chamber has to pass the budget. In practice, this is done in a plenary with both chambers sitting jointly. The two chambers are supported by parliamentary committees. On budget matters, each chamber relies on its Committee on Budget, Finance, Banking and Capital Markets to co-ordinate the budget process on its behalf. The committees work jointly to finalise a report to be voted on during the Parliamentary session.

Parliamentary involvement in the budget process

Parliamentary involvement in the budget process runs from 15 November to the end of December (see Table 3). Observations over the past 10 years suggest that the Parliament has limited time to appropriately scrutinise the budget. With just six weeks to review the budget, Romania falls behind other countries, and the *OECD Best Practices for Budget Transparency* recommends a minimum of three months for parliamentary scrutiny of a draft budget (OECD, 2002, p. 8_[1]). The Court of Accounts' Annual Public Report, which contains a summary of its conclusions on the financial statements for the previous year, is rarely available in time for the Parliament's review of the budget – limiting opportunity to provide budget accountability and well-informed scrutiny.

Table 3. Parliamentary involvement in the Budget Process

Budget Task	Timetable
Developing and approving the annual budget law	- By 15th November: the Draft Budget should be submitted to Parliament. - By 15th November: the Report on the Macroeconomic Situation and Forecasts provides an updated macro-fiscal forecast for the budget year and following three years. - By 28th December: the State Budget Law must be approved by Parliament.
Audit of budget execution	The Court of Accounts audits a summary Budget Execution statement and an annual balance sheet that are presented to Parliament.

Source: (OECD, 2020_[2])

Opportunities exist to extend the timetable allotted to Parliament to review the budget to allow for expert consultation and informed policy debate. With less than three months to review the budget, the timetable allotted for Parliamentary review is compressed – limiting opportunities for debate and input from stakeholders across government and civil society. Consideration, over the long-run should be to extend this period. Observations of best practices across the OECD show that Parliament and relevant stakeholders (e.g. the Fiscal Council) should have the opportunity to review the draft budget – preferably no less than three months prior to the start of the fiscal year.

Amendments and approval of budget

Parliament has authority to amend the draft budget, provided these amendments do not increase the budget deficit. In practice, this has created challenges for maintaining fiscal discipline. Previous instances of additional proposed amendments, particularly during the time of elections, have posed significant challenges to the government's deficit target. The focus of the final Parliamentary debates is on the budget figures for the upcoming fiscal year. Although information on medium-term planning and fiscal consolidation is presented, there is limited debate on long-term sustainability of fiscal issues. The final debates are summed up by the Minister of Finance with a vote. The Budget Acts are then promulgated by the President and are published in the Official Journal.

Other expenditure legislation

The government can make adjustments to the annual budget through no more than two budget rectifications (Law 69/2010 on Fiscal Responsibility) and by issuing emergency ordinances. These require approval by the Parliament and, in the process of approval, can be reviewed and changed. Budget rectifications cannot be made in the first six months of the fiscal year – unless there is a significant worsening of the forecast of macroeconomic indicators – and should be made by 30 November of the fiscal year to which they relate. Though expected to follow the same procedure as the draft budget, in practice, budget rectifications are put in place through emergency decrees and are acted on as soon as they are made. Any approval or modification by Parliament occurs after the event, usually at the end of the fiscal year, and has no impact on spending that has already occurred. The frequent use of derogations from the law through the use of emergency ordinances, which are designed for exceptional circumstances, pose risks to the integrity of the budget process.

The Parliament can initiate and pass laws that involve budgetary spending, provided that it identifies the source of funding (Article 138(5) of the Constitution). However, this requirement is not always observed. Over the past 5 years, the Parliament initiated laws on social security payments and public sector salaries in contravention of the Constitution. It also failed to observe a requirement to commission an impact assessment on important legislation, including any legislation it initiates itself. These derogations create challenges for the MoF and line ministries in managing the budget. Historically, the MoF has either been required to postpone aspects of implementation specified by emergency ordinances or challenge the law in the Constitutional Court.

Parliamentary committees

The main debate on the budget takes place in the Joint Committee on Budget, Finance, Banking and Capital Markets¹. Subject matter committees of the two chambers of Parliament also sit jointly for the budget hearings. Government ministers and officials appear to explain and answer questions on their budget requests. Other entities, including the independent institutions and individual experts from academe

¹ In relation to budget issues, its remit is to look at the state budget and budgetary execution; the state social security budget and its execution; taxes and duties; external loans made or guaranteed by the State; and investments from budgetary credits.

or civil society, can also be invited to give views, although this rarely happens in practice. Following debate in the hearings, the recommendations of individual sectoral committees are gathered and presented to the Joint Committee on Budget, Finance, Banks and Capital Markets, which then seeks to take an overall view and negotiates to reduce the number of total recommendations to a smaller, more manageable number for consideration by the plenary sitting of Parliament.

With their focus driven by interests of individual committee members, Parliamentary committees spend only limited time scrutinising the quality of spending proposals and the contribution of programmes towards national goals. The complex presentation of budget tables and data, and the diffuse nature of additional information provided limits opportunities for informed budgetary debate. Equally, with only a small number of technical staff available for support, committees are limited in their capacity to appropriately support Parliamentarians through the budget process.

Box 2. Parliamentary Budget Offices in Austria and Ireland

In Austria, the Parliamentary Budget Office (*Budgetdienst*) directly supports the Budget Committee to improve the ability of parliament and the Budget Committee to engage with the budget process and providing analysis of budget documents (particularly performance budgeting). Specifically, the Parliamentary Budget Office provides independent analyses on all budget-related documents focussed on fiscal policy, development of income and expenditure, tax revenue and the adequacy of budget allocations in relation to economic forecasts, performance information and gender budgeting (von Trapp, Lienert and Wehner, 2016^[3]).

In Ireland, there are two bodies – the Oireachtas Parliamentary Budget Office and the Fiscal Advisory Council, each of which provides independent analysis to inform budget debate and provide transparency and accountability (von Trapp, Lienert and Wehner, 2016^[3]).

In the intermediate term, allocating more time, providing clearer presentation of budget information and inviting independent experts to give additional information and resources could help to develop Parliamentary-staffing resources to support the work of committees. Over the medium-term, consideration should be made to establish a Parliamentary Budget Office to provide independent expertise to Parliamentarians in the budget process. In a number of OECD member countries, the emergence of Parliamentary Budget Offices has helped to boost parliamentary scrutiny and the quality of debate around fiscal and public financing issues. Most importantly, greater political interest in and support for performance and results information could amplify existing reform efforts to modernise the budget system. This model would be similar to the Parliamentary Budget Office model found in various OECD countries (Box 2).

The Fiscal Council

The Romanian Fiscal Council undertakes fiscal surveillance on an *ex ante* basis. It analyses and issues opinions and makes recommendations on budget developments throughout the budget process, including on official forecasts prepared by the National Commission for Strategy and Prognosis which are responsible for the government's economic forecasts. These are published on its website for wide distribution, including in English. The Council publishes an annual report at the end of May each year, where it discusses and analyses the implementation of fiscal policy as set forth in the fiscal strategy and in the annual budget approved in the previous year. International donor bodies assess the Council as strongly independent, producing valuable and technically robust reports.

Often, the Fiscal Council fails to receive necessary information in a timely manner due to the tight budget timetable. The MoF does not hold informal discussions with the Fiscal Council before or during its preparation of the draft budget. As a result, the Fiscal Council has, at times, been left with as little as a

24-hour turnaround to meet its legal obligations. It has, on occasion, issued a preliminary opinion, reserving its full report until such time as it receives all necessary information to finalise its view. The MoF is usually forthcoming in providing any additional data requested.

Key stakeholders within the budget process value the role the Council plays in providing greater transparency and validity to the budget in relation to improving the accuracy of forecasts and estimates, and their reconciliation to the European framework. Furthermore, the Council's opinions raise issues and concerns that would otherwise be difficult to air with the Government. Strong dialogue initiated by the Fiscal Council across key institutions has created opportunities to improve the quality of reporting.

There are opportunities for the Council to improve fiscal oversight in Romania. With limited capacity within Parliament to undertake independent analysis of the budget, Parliamentary committees could incorporate the views of the Council to inform budget decisions. This can be in the form of extending the time for budgeting debate to allow the Council to provide input for budgetary discussions. Some stakeholders would like to see the Council play a more ambitious role, such as by preparing its own fiscal forecasts. However, the Council struggles with limited resources to meet its current requirements, and as a result has a constrained ability to increase its scope and function.

Budget execution, control and transparency

Introduction

A strong process for cash management, budget flexibility and execution, internal control and audit are critical functions to promote the integrity and quality of the budget. It is important to ensure appropriate attention is made to improve capacity in this area. Romania's financial reporting framework, budget transparency and accountability institutions play an important role in helping to ensure appropriate oversight within the budget process. Institutions such as the Court of Accounts should be strengthened and continue to play an active and engaged role in holding the government to account.

Cash management

Cash management is well-established in Romania with the use of a Treasury Single Account (TSA) held at the National Bank of Romania. This allows the MoF to have a consolidated view on transactions by providing a real-time view on outstanding amounts and overall cash needs across the system to manage the government's cash balance. Payments from the treasury single account are made according to the monthly and quarterly limits approved by the MoF's General Directorate for the Synthesis of Budget Policies.

Budget flexibility and execution

In Romania, the processes for budget control and reporting are clearly defined. Line ministries plan for budget drawdowns on a quarterly basis and establish a monthly schedule for cash needs within approved budgetary credits whereby requests for monthly credits are made to the MoF. Public managers are allotted some degree of flexibility within programme classifications, but there are clear limits to how funds can be shifted across programmes within the budget year.

Project execution in line ministries is generally left to programme managers in the relevant business directorate, where they oversee and monitor individual projects and report back to their respective central financial unit/budget directorate. Central financial units within each ministry monitor progress on the approved budget structure, personnel expenses, grant payments, and revenues and expenditures.

There is some degree of flexibility given to public managers on how they allocate resources. The Public Finance Law permits and sets conditions for the redistribution of appropriated funds, with greater flexibility given within programme classifications than between programmes.

Central funds to local governments are managed by the MoF. For each of the country's 41 counties, there is a public finance regional directorate (a decentralised MoF office) that is responsible for monitoring and reporting local government expenditure to the MoF. When the budget is passed by Parliament, final allocations to local governments are distributed using a set formula. Similar to line ministries, local governments receive European Union funds and follow strict compliance guidelines set by the EC and MIEP. All payments made by local governments are through the budget expenditure accounts maintained at the State Treasury. Their official cash holdings are reported on the balance sheet of the central government and consolidated with the cash held by other public institutions.

Historically, some local governments have struggled with estimating revenue sources, leading to budget overruns. In some instances, local governments have been found to retain unspent funds. In 2018, for example the MoF found LEI 15 billion unspent sitting in local government accounts, an amount that, if accessed and spent, could have affected significantly planned budget deficit levels. Efforts have already been made to improve the capacity of local governments through training and by issuing guidelines to improve reporting and payment claims processes.

Financial monitoring

The National Institute of Statistics produces accrual reports that comply with Eurostat standards twice a year. However, it still relies on time-adjusted cash methods in meeting these standards. MoF Order 1917/2005 introduced accrual accounting principles into Romanian public finances from 2006 onwards. Accrual principles appear to be understood to a good standard throughout government, even by those who continue to collect data on a cash basis.

Romania has made significant improvements in financial monitoring in the past ten years. It has established accrual-based accounting, following developments seen in other OECD countries, as well as putting in place a solid Financial Management Information System, FOREXEBUG, to help improve monitoring and reporting across the government. In 2016, all public institutions were enrolled in the FOREXEBUG financial management information system, including local governments where the MoF has permitted access to the system; they started to use the financial statements reporting module from 2017. At the time of this review, FOREXEBUG runs in parallel with a paper-based reporting system, which provides less details with variable consistency. FOREXEBUG is already able to produce trial balances that are more accurate than those based on the paper-based system. At the date of this report, FOREXEBUG is expected to be available as a fully centralised and automated financial reporting system in 2023.

Local governments also use the FOREXEBUG system as a way to provide stricter controls and prevent budget overruns. The MoF does monthly checks of data in the system to monitor local government spending, and it can ask for additional information to assess the efficiency of budget execution. However, due to the multitude of local entities, it is difficult for the MoF to play a controlling role over expenditures of local entities.

The biggest change in financial monitoring came about with the introduction of the FOREXEBUG system in 2017. FOREXEBUG improved the MoF's ability to monitor execution of the budget and extract relevant data. It allows for the tracking of commitments, payments done and outstanding payments and enables efficient communications between the MoF and primary account holders on budget issues. Line ministries are responsible for verifying information processed, including for the consolidation of financial information inputs to allow for the central production of balance sheets and cash flow statements.

Internal control and audit

The MoF's Central Harmonisation Unit for Public Internal Audit (CHUPIA) co-ordinates and supports the internal audit structures of both central and local government entities. Central Harmonisation Unit for Public Internal Audit conducts training seminars, but its capacity to reach and support more than 2 500 internal audit professionals across the central and local government is limited. It has held preliminary discussions with professional bodies and with the Court of Accounts about outsourced options for providing professional training to internal auditors. It also undertakes evaluations of the internal audit functions of entities and provides these reports to both the Minister of Finance and the senior management of the relevant entities.

After its accession to the European Union, Romania was required to separate internal audit functions within government from internal control functions. Internal audit functions have systematic procedures and requirements established by law. Capacity constraints, however, have limited the full integration of internal audit functions across many entities, leading to situations where subordinate entities have to request support from superior bodies. Notable efforts have been undertaken to address this capacity gap through initiatives like training seminars for professionals across central and local governments. However, greater interest and support is needed to improve audit functions across public administration. Many entities find they simply cannot meet all of the internal audit requirements established under law. For example, 3 208 local administrative units are required to have an internal audit function. While the law allows for sharing resources and flexibility for some small entities to join up to establish a shared internal audit function, capacity constraints remain. Not all senior managers see internal audit as a priority area for support.

Improvements should be made to build capacity of internal audit functions across government entities by providing further training and support, as well as building on Central Harmonisation Unit for Public Internal Audit's efforts to link up with other bodies, such as the Court of Accounts. Existing capacity constraints have limited the full integration of internal audit functions across many entities minimising opportunities to safeguard the quality and integrity of the budget process. By investing in the skills and capacity of staff to conduct these functions, opportunities exist to audit the cost-effectiveness of individual programmes and improve the quality of performance accountability in the government. Importantly, a shift in senior management perception is needed to recognise that internal audits can serve to improve performance and efficiency, public management practice and service delivery across all parts of the government. This can help to integrate a culture of performance management across the public administration.

Financial reporting framework

The MoF's Directorate of Public Accounting is responsible for setting the reporting requirements and accounts structure for the central government. Orders of the Minister of Finance can be used to amend or supplement accounting law to update or clarify the requirements of the system.

Romania's financial reporting framework is closely tied to European reporting requirements and is in line with international standards of practice. Improvements can be made to streamline the presentation of information and present it in a more accessible format. Eurostat (ESA) standards are central to external reporting requirements. Within the government, the National Institute of Statistics (NIS) is responsible for non-financial statistics, and the National Bank of Romania and the MoF play important role in financial statistics. The National Bank of Romania, in particular, does financial accounts for all sectors, balance of payment statistics and international investment statistics, and contributes data to the Government Financial Statistics (GFS) and the European System of Central Banks and Eurostat. The three institutions meet when required to clarify classification issues around particular data categories or matters of borderline interpretation.

European reporting requirements are for member countries to provide accrual reports twice a year – in April and October. These are in addition to national quarterly financial reports, fiscal statistics and annual

budget reports. The National Institute of Statistics receives inputs from the MoF to produce final reports to Eurostat standards. Some of the MoF's consolidated reporting inputs require corrections and conversions to the standards set by Eurostat. This can be an issue for quarterly reports on the general government sector, where the fast-moving nature of the fiscal notification process makes meeting Eurostat's tight deadlines challenging.

Since 2015, assessments have found that the availability of large volumes of information on general government operations is undermined by the fragmented nature of the data. The assessments also found the absence of a comprehensive set of consolidated financial statements produced on an accrual basis in accordance with international standards. As an example, Romania's large public corporations sector, with expenditure of around 10% of GDP, remains outside any consolidated government financial reporting. Recommendations have included using existing reporting to be expanded to include the broad public sector, publishing reconciliations between cash and accrual reports, enforcing strict timelines for publication of financial statements and ensuring external accounts are assessed on the basis of compliance with international standards. Following these recommendations, the National Institute of Statistics noted improvements in the availability of reported information, with some data fragmentation and quality addressed, and consolidated financial statements better aligned to international standards. Challenges of managing dual cash and reporting systems are complicated with the existing structure of the budget. Romania should continue to improve the quality of reconciliations between cash and accrual reports to provide an accurate account of the budget by increasing the awareness of accounting standards with line ministries.

Further improvements should be made to present information in a more accessible format. The issue of data fragmentation and data quality should be addressed. Independent bodies and expert groups could help to analyse and streamline the type of information currently presented to support greater usage of information within the budget process.

Over the medium and long-term, improvements can be made to ensure *ex post* reports (n-1) are presented to Parliament before the draft budget (n+1) is presented. The MoF prepares the annual budget execution report that is audited by the Court of Accounts a year after the relevant budget year. Romania should support initiatives explored by the Court of Accounts to streamline its end-of-year processes to facilitate earlier reporting to Parliament. Such efforts to re-engineer the reporting process can help inform budget decisions for subsequent years.

Lastly, efforts should be continued to improve the quality of reconciliations between cash and accrual reports which helps to provide an accurate account of the budget to key stakeholders within the budget process. This can include continuing key engagements with line ministry and MoF staff to ensure appropriate interest and expertise is maintained as the government makes the full transition to accruals-based accounting.

Budget transparency

Budget transparency plays an important role to facilitate realistic debates on key priorities, trade-offs, opportunity costs and value for money. The MoF has made budget data more transparent and accessible. It publishes extensive public expenditure information in open data formats and releases updates on a monthly basis. FOREXEBUG is credited with supporting good quality data since 2016.

There have been efforts to create closer linkages with civil society by allowing for public participation in specific policy fields of interest. Within line ministries, there has been some strong engagement with peak bodies and stakeholder groups as evidenced during the recent COVID-19 health crisis, where civil society was consulted during the development of economic and support measures. Another example is the Ministry of Agriculture and Rural Development, which consults external stakeholders at the strategic and budget planning stages. However, timing and process constraints prevent it from consulting on offsets and

savings issues. Draft policies are published on its websites and stakeholders are targeted, in particular, on new proposals or major changes. Some civil society groups have good linkages and contribute to international surveys on open government, budget practice and corruption risks in public procurement. Though there have been valuable attempts from civil society to improving accountability and transparency on budgetary matters, the general interest from government and parliament in these initiatives remains limited.

The tight budget timetable makes public consultation on the draft budget difficult. The pre-budget statement and the report on the macroeconomic situation are often released only a few days before the draft budget itself, and there is limited opportunity for comment or debate. Despite having an existing framework to promote inclusivity and accessibility of the draft budget, progress has been limited. For example, at the time of this review, the proposed pilot of a citizen-friendly version of the draft budget has not taken place.

Efforts are underway to address some of these challenges. Several laws regulate the field of public consultation, access to public interest information and open government (including Law no 52/2003 on *Transparency in the Decision Making Process*). The National Action Plan for Open Government includes commitments to consult with civil society during deliberation of the budget and on major policy issues. There is a Directorate for Open Government and Relations with Civil Society in the General Secretariat and it has been working on a database, called “Connect”, for non-governmental organisations interested in collaborating with government to provide information on fields of policy interest. In 2019, the Court of Accounts established an e-mail address dedicated to a direct dialogue with citizens and civil society, allowing them to propose audit topics.

Interest has been shown by civil society groups in the digitisation of the Romanian public administration, and a special agency has been established. The improvement in the quality of information published on Romanian Government websites on a range of issues have been received well by key stakeholders. However, information is often presented in a PDF format where it is difficult to search and time-consuming to download due to the granular and compartmentalised way information is organised. Improvements should be made on improving the structure of the presentation of budget information in Romania. For instance, currently, all ministry budgets are online, but as separate files with no time series of data. Efforts to consolidate information in a simplified format can make information more accessible to the public.

Court of Accounts

The Court of Accounts (CoA) is the supreme audit institution in Romania. Its principal legal framework is Law 94/1992 on the Organisation and Operation of the Court of Accounts, stipulating it “shall conduct the control of the establishment, management and use of state and public sector financial resources”. The Court of Accounts undertakes financial and compliance audits and has, at the time of this review, been working to develop capacity for performance audits.

The Court of Accounts’ main focus is on the accuracy of financial statements and on financial controls. For its financial audit work, it has access to all relevant information, including the FOREXEBUG system, where data is itemised for around 13 700 entities in central and local government. This allows auditors to conduct their analysis without disrupting the work of entities and has had a positive impact on the quality of auditing work.

The Court of Accounts tries to promote these concepts through its recommendations and by following-up on progress in their implementation. Overall, the quality of implementation has improved, especially in the central government. By year three after the completion of an audit, Court of Accounts implemented 75-80% of the recommendations relating to central government.

Over the past five years, the Court of Accounts has been devoting greater consideration to performance audits. In 2019, the Court of Audit conducted 17 performance audit missions involving 234 entities. There is an internal guide for performance audits, which requires results (programme execution and delivery of

services) to be assessed against planned objectives (i.e. those contained in the relevant Institutional Strategic Plans and aligned with government strategy). However, there is no real culture of improving efficiency and effectiveness in government entities - particularly when it is not a focus of senior public managers or the Parliament.

Together with the General Secretariat of the Government, the Court of Accounts is involved in a project financed by the European Social Fund aimed at strengthening government strategic planning. The Court's activities in this project are mainly aimed at documenting and disseminating information on the role of supreme audit institutions in strengthening government strategic planning, as well as conducting a high-level analysis of the link between strategic planning and the internal management control system.

For audits of financial statements, the Court of Accounts relies on data provided by the Public Accounting Directorate. To help facilitate decision making, the Court of Accounts should present its final report to Parliament shortly after financial statements are submitted by the MoF. This would improve Parliamentary scrutiny of end-of-year accounts and provide better information for the next budget cycle.

Investing to upgrade the technology available to the Court of Accounts would help to reduce the time necessary for the planning and execution of audits, making possible a quicker assessment of information with more time for desk research. This can be particularly helpful to present information to Parliament at an earlier timeframe. If the Court of Accounts was enabled to start its review before the deadline for submission of financial statements by public entities, working in parallel with the MoF and other entities, it could then present its final report to the Parliament shortly after the financial statements themselves are presented by the MoF. The Court of Accounts has already taken some of the steps to improve its capacity. These should be continued and reinforced by joining forces with MoF to plan for a smoother and timelier process.

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Gender budgeting: The economic and fiscal rationale

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Gender gaps persist in the labour market, with women less likely than men to be in employment in all OECD countries. This paper highlights the economic and fiscal dividends that could be achieved from closing the gender employment gap. It shows that increasing women's participation in the labour market can bring positive GDP and productivity gains, as well as improvements to fiscal sustainability. Increased participation of women in the workforce is particularly helpful in the context of the shrinking labour forces that many OECD countries are expected to face over the coming decades. The paper illustrates how gender budgeting can be used by governments to mobilise policy making to close gender gaps in the labour market and help realise these economic and fiscal gains.

JEL classification: H61, J11, J16

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This article is one of the two articles concerning gender budgeting published under the Volume 2022, Issue 3 of the *OECD Journal on Budgeting*. Gender objectives can be overlooked in times of fiscal pressure but this first article highlights the economic and fiscal dividends that can be achieved from closing gender gaps. It also illustrates the role that gender budgeting can play in helping achieve these dividends. The second article considers how approaches to gender budgeting may need to be altered in the context of tighter budget constraints. Specifically, it looks at how gender considerations can be brought into spending review – a tool which is likely to become increasingly important in helping governments prioritise and reallocate spending.

Executive summary

Gender inequalities persist in all areas of social and economic life. The OECD Declaration on Building Trust and Reinforcing Democracy adopted in November 2022 and its annexed Action Plan on Gender Equality highlight the need to enable women's full representation and participation in public life. While female labour force participation rates have moved closer to men's over the past few decades, women are still less likely to be in the workforce and often experience lower job quality across OECD countries. Women who do work are more likely to work part-time, and in less lucrative fields. These factors contribute to substantial gender pay gaps.

The social injustice of gender inequalities is clear. What is less understood is that the economic and fiscal costs of these gender inequalities are also high, particularly when considered in the context of current demographic trends. Population ageing and low fertility rates mean that the workforce is shrinking, affecting both the future size of the economy and the health of public finances. By 2050, more than four in ten individuals in the world's most advanced economies are likely to be older than 50. Abstracting from productivity gains due to technological progress or other factors, real GDP per capita would drop by 10% on average by 2050 in almost all OECD countries if employment rates remain constant. These dynamics put pressure on government finances. Not only will revenues fall as the working-age population shrinks, but the need for spending on pensions and health and long-term care will also rise.

Enabling greater participation of women in the workforce offers the opportunity to alleviate challenges relating to ageing societies and low fertility rates. The economic case for closing gender employment gaps is strong. Tapping into the potential of female workers and closing the gender gap that currently exists would raise real GDP per capita in 2060 by 5.7% on average in the OECD. A better allocation of female workers across occupations and economic sectors can help reduce wage gaps for women and further contribute to growth. There is also emerging evidence that greater gender equality in the workforce has positive benefits for productivity. This is linked to the higher productivity that can be gained through greater diversity.

The outlook for fiscal sustainability can also be improved by closing the gender employment gap. Increasing employment and income brings additional tax revenue and social security contributions. It can also reduce demand for public finance transfers and welfare benefits. Together, these factors help relieve pressure on government finances.

Gender budgeting is an important public governance tool that governments can use to identify and fund measures that will be effective at closing gender gaps. It is one of a suite of gender mainstreaming tools that help integrate gender considerations into government decisions to help achieve gender equality objectives. A whole-of-government approach encompassing legal, regulatory, policy and budget decisions can be significantly more effective than a single, stand-alone tool.

Gender budgeting is unique among other tools in that it helps shine a light on the macroeconomic and distributional impacts of budget policy, allowing decision makers to adopt the most effective budget measures to support gender equality while boosting economic growth. Because government tax and

spending decisions shape people's choices regarding work and economic participation, it is appropriate that gender equality be considered as part of the budget process.

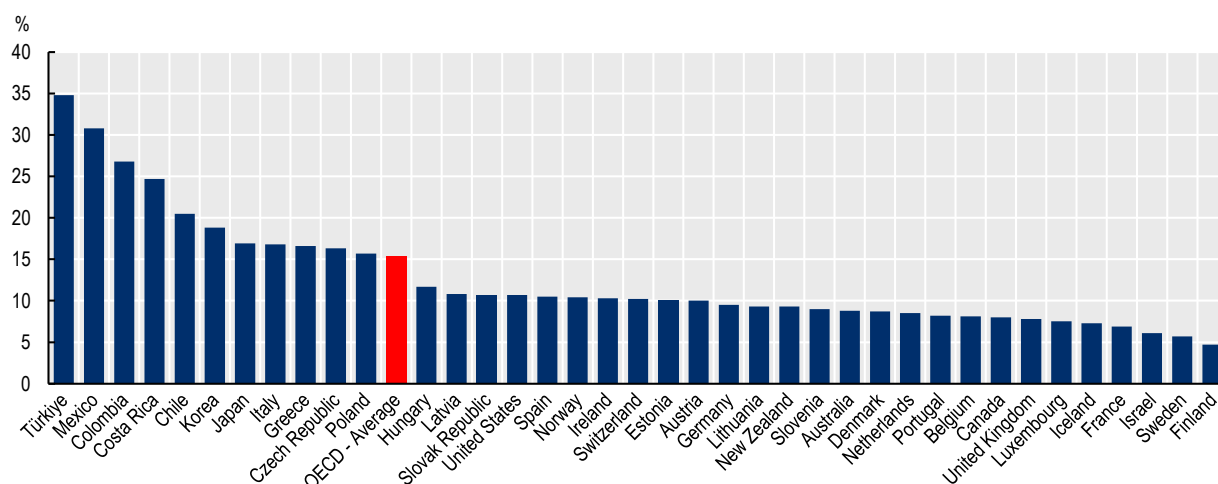
Approaches to gender budgeting use a variety of tools, such as distributional assessment of tax and welfare measures and gender impact assessment. These help identify the expected gender equality outcomes from policies and programmes included in the budget. The analysis may prompt decision makers to re-assess existing budget measures or introduce new budget proposals to make the budget more effective at meeting gender goals. The analysis can also help decision makers improve the design of policy measures seeking to close gender gaps in the labour market, such as childcare subsidies or changes to taxation for second earners. In this way, gender budgeting brings analytical work to the fore that helps promote budgetary policy that is well thought out and effective at meeting gender equality goals.

Introduction

Gender inequality remains an important issue across the OECD, and one area where it figures prominently is in the labour market. Figure 2 shows that, compared to men, women are less likely to be in employment in all OECD countries. The gender employment gap is lowest in Sweden (5.7%) and Finland (4.7%), and highest in Mexico and Türkiye, where it is over 30%.

Figure 2. Gender employment gap

Difference in percentage points between male and female employment to population ratios, 2021



Note: Population aged 15-64

Source: (OECD, 2022^[1])

Women are also more likely to be employed in lower-paid occupations, and less likely to progress in their careers. As a result, gender pay gaps persist. This has negative knock-on impacts for both the economy and public finances.

Addressing gender inequality can bring strong dividends for society as a whole. Increasing equality in the labour market requires addressing gender inequalities on many fronts. For example, gender-based violence, unpaid care responsibilities, and women's health issues can all impact the capacity of women to participate in the workforce.

This paper examines the macroeconomic and fiscal benefits of increasing women's participation in the labour market. It presents information on how greater gender equality in the labour market can increase employment and GDP, and its positive benefits for productivity as well as fiscal sustainability. It then looks at the important role that gender budgeting can play in helping achieve these benefits.

The macroeconomic and fiscal benefits of gender equality

Closing gender employment gaps can bring a wide range of dividends for society at large. This section provides information on the economic and fiscal dividends. It highlights how increasing gender equality in the labour market has strong positive effects on economic growth, and emerging evidence that increased gender equality in the workforce can bring productivity gains. It then looks at how greater gender equality can help improve prospects for fiscal sustainability, particularly in the context of an ageing population and low fertility rates.

Greater gender equality in the labour market increases employment and GDP

Many OECD countries are facing shrinking workforces, driven by a combination of ageing populations and low fertility rates. On average across OECD countries, the median age was 41 years in 2020, eight years higher than in 1990. It is expected to further increase by six years by 2050 – meaning that half of the population will be younger than 47 and half older. The total fertility rate is below the estimated replacement level – the number of children per woman needed to keep the total population constant – of about 2.1 in developed countries, in 36 out of 38 OECD countries (OECD, 2021^[2]).

In the longer term, the need to react to labour shortages will become increasingly pressing, with impacts on the economy. Abstracting from productivity gains due to technological progress or other factors, real GDP per capita would drop by 10% on average by 2050 in almost all OECD countries if employment rates remain constant (OECD, 2020^[3]).

Greater gender equality in the labour market offers the opportunity to mitigate or even overcome this trend. Identifying and decomposing the sources of past economic growth helps provide insights into the potential link between women's employment and growth. GDP per capita growth in OECD countries between 2000 and 2019 shows that, while increases in labour productivity has the greatest impact on economic growth across the OECD overall (+1.20 p.p.), increases in female employment have been important as well (+0.28 p.p.) The importance of increases in women's employment for annual economic growth varies strongly across countries, with the countries experiencing the most sizeable increases in the employment rate of women observing substantial contributions to growth (OECD, forthcoming^[4]).

The link between greater participation of women in the labour market and economic growth can also be seen by looking at country case studies. For example, economic gains from greater gender equality in the labour market in Nordic Countries are shown in Box 3.

Box 3. Economic gains from gender equality in Nordic Countries

Improvements in gender equality have contributed considerably to economic growth in the Nordic countries. Increases in female employment alone are estimated to account for anywhere between roughly 0.05 and 0.40 percentage points to average annual GDP per capita growth – equivalent to 3 to 20% of total GDP per capita growth over the past 50 years or so, depending on the country.

A more recent OECD study finds that improvements in female employment rates have accounted for 10-20% of average annual growth in GDP per capita over the past 40-50 years in the Nordic countries (Denmark, Iceland, Norway, and Sweden).

Source: (OECD, 2018^[5])

Given that women still have substantial barriers to employment across the OECD, further efforts to increase women's engagement in paid work promises an additional boost to economic growth. This is illustrated through long-term modelling which looks at potential annual growth in GDP per capita under different labour market scenarios. Tapping into the potential of female workers and closing remaining gender gaps would increase the size of the workforce and raise real GDP per capita in 2060 by 5.7% on average in the OECD (OECD, 2020^[3]). The effects of closing remaining gender gaps are varied across OECD countries (see Figure 3).

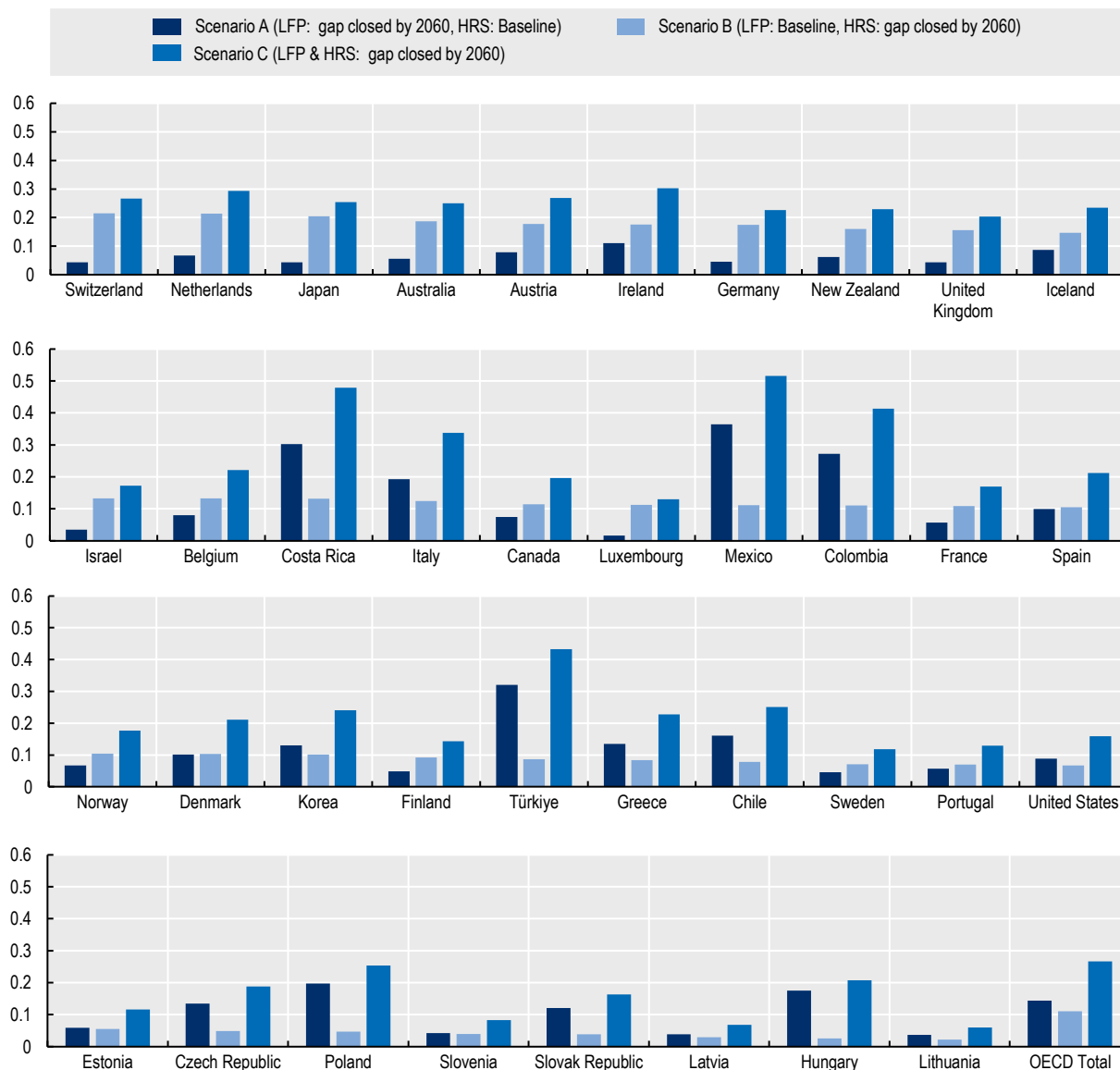
Countries starting with larger gender gaps tend to benefit more from increasing female labour force participation than those with smaller gender differences in labour force participation. For example, Costa Rica, Mexico and Türkiye – three of the OECD countries with the highest gender employment gaps - would benefit most strongly from closing gender labour force participation gaps (OECD, 2022^[6]). These countries could all expect between 0.3 and 0.36 percentage points of additional annual growth in potential GDP per capita from closing labour force gaps fully by 2060.

Countries starting with large working hour gender gaps would also benefit more from convergence in male and female working time than those with smaller gaps. For example, Switzerland, Netherlands, and Japan, where part-time employment is common among women and the gender gaps in working hours relatively high, could expect between 0.2 and 0.21 percentage points of additional annual growth in potential GDP per capita if their working hours gap closed fully by 2060 (OECD, 2022^[6]).

In addition, more equal distribution of men and women across occupations and economic sectors can further contribute to growth. For example, if more women join the labour force in fields with skills shortages that have good employment prospects, such as Science, Technology, Engineering and Maths (STEM), they are likely to find employment and contribute to reduced wage gaps for women. Addressing structural biases that contribute to lower wages in female-dominated sectors such as care and education could also help reduce wage gaps for women. Reducing the gender pay gap can also play an important role in attracting more women to the labour force (European Institute for Gender Equality, 2017^[7]).

Figure 3. Gains in growth from closing gender participation and working hours gaps over the period 2020-2060

Estimated difference relative to the baseline in the projected average annual rate of growth in potential GDP per capita over the period 2020-2060, different gender gap scenarios, in percentage points



Note: Data based on Labour Force Surveys and OECD in-house labour force projections. Scenario A refers to a closure of gender gaps in LFP by 2060. Scenario B refers to a closure of gender gaps in working hours by 2060. Scenario C refers to a closure of both. LFP: Labour force participation; HRS: Working hours.

Source: OECD estimates based on [OECD population data](#), the [OECD Employment Database](#) and Employment Projections and the [OECD Long-Term Growth Model](#)

Greater gender equality in the workforce may also have positive benefits for productivity

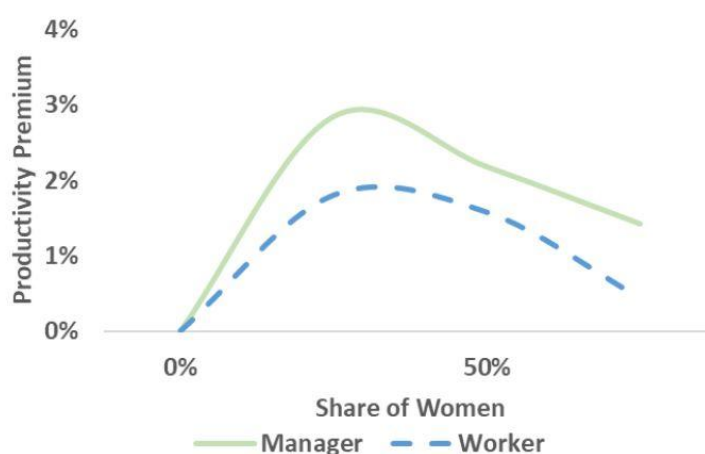
There is emerging evidence that greater gender equality in the workforce has positive benefits for productivity. This is linked to productivity gains from greater diversity.

Gender diversity in the workforce is associated with productivity gains

Gender diversity among managers – and to a lesser extent, among workers – is positively related to firm productivity. With many firms in the OECD having a share of managers well below the current implied peak for productivity, there are productivity gains to be achieved from becoming more gender diverse. It is estimated that even greater gains could be achieved with a more level playing field in relation to parenthood (Criscuolo, 2021^[8]).

Figure 4. Productivity gains associated with employing a gender diverse workforce

Productivity gains associated with employing a higher share of women among managers and workers on average across countries



Note: Figure shows productivity premium associated with employing a higher share of women among managers or workers respectively. Results shown are smoothed dummy estimates for women share bins (in 20 percentage point categories) compared to the baseline category of having a women share of 0-20% in the respective group by sector. Productivity premium is approximated by difference in log productivity. Results are based on baseline firm-level regression estimated separately for each country. Estimates shown are averaged across countries; estimates insignificant at the 10% confidence level are replaced with 0 when computing the average. Managers are identified based on 2-digit ISCO 08 occupations. Productivity is measured as log of value added per worker. On average across countries, most firms are in categories 0-40% and less than 25% of firms located in categories 60-100%, are so identification of categories above 60% is based on relatively few observations and thus more uncertain.

Source: (Criscuolo, 2021^[8])

Gender diversity of managers is associated with higher productivity in different sectors, with gains particularly pronounced for firms in the service sector. For top managers in large firms, more diversity is associated with an even larger productivity premium (up to 6%). For workers, gender diversity in services is associated with higher productivity, but not in the manufacturing sector (Criscuolo, 2021^[8]). Rather than signalling that firms in manufacturing cannot benefit from gender diversity, this may reflect a relatively higher prevalence of obstacles to efficient co-operation, e.g., a male-dominated work culture (Ali, Kulik and Metz, 2011^[9]).

In terms of understanding potential causality, positive impacts on productivity may be generated by employees with different backgrounds permitting a broader perspective and enhancing decision making (Woolley, 2010^[10]). Positive impacts could also be generated because underrepresented genders are found to be more likely to innovate in their discipline (Hofstra et al., 2020^[11]). Furthermore, women bring different skills to the workplace because of social norms, upbringing, social interactions, and differences in risk preferences (Croson, 2009^[12]). Also, opening up access to jobs for underrepresented demographic groups, for instance women, broadens the pool of candidates from which firms can choose talent (Bennett et al., 2020^[13]).

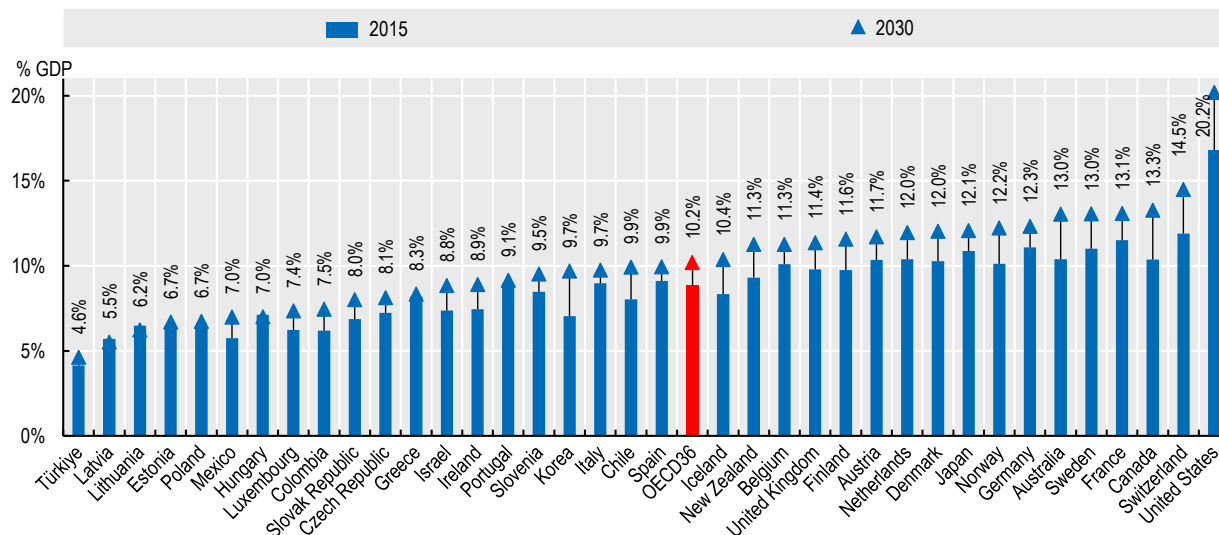
Greater gender equality in the labour market benefits fiscal sustainability

Key spending and revenue items, and thus the outlook for public finances, are sensitive to both the size and structure of the population. The current dynamics related to ageing populations and fertility rates are putting increasing pressure on government finances. Tax revenues fall further as the working-age population shrinks, but the demand for spending on pensions, health and long-term care continue to rise. Rising health costs will exacerbate the challenge.

Fiscal sustainability is becoming an increasing concern, particularly in the context of public debt having increased significantly in the aftermath of the COVID-19 pandemic. Long-run projections to 2060 give an idea of the fiscal pressures that OECD governments will face to prevent gross government debt ratios from rising further over time (Figure 5).

Figure 5. Potential future fiscal pressure to keep public debt ratio at current level

Change in fiscal pressure between 2021 and 2060, % pts of potential GDP



Note: The chart shows how the ratio of structural primary revenue to GDP must evolve between 2021 and 2060 to keep the gross debt-to-GDP ratio stable near its current value over the projection period (which also implies a stable net debt-to-GDP ratio given the assumption that government financial assets remain stable as a share of GDP). The underlying projected growth rates, interest rates, etc., are from the baseline long-term scenario presented in Guillemette and Turner (2021). Expenditure on temporary support programmes related to the COVID-19 pandemic is assumed to taper off quickly. The necessary change in structural primary revenue is decomposed into specific spending categories. The component 'Interest on COVID legacy debt' approximates the permanent increase in interest payments due to the COVID-related increase in public debt between 2019 and 2022. The component 'Other factors' captures anything that affects debt dynamics other than the explicit expenditure components (it mostly reflects the correction of any disequilibrium between the initial structural primary balance and the one that would stabilise the debt ratio).

Source: (Guillemette and Turner, 2021^[14])

The largest pressures will come from public pension expenditure, projected to increase by 2.8 percentage points of GDP in the median OECD country between 2021 and 2060, although cross-country variation is high. Public health and long-term care expenditure is the next largest pressure, projected to increase by 2.2 percentage points of GDP in the median OECD country over the period shown. Any permanent increase in health spending after the COVID-19 pandemic could increase this further. Other primary expenditures, associated with seeking a constant level of public spending per capita in real terms, are also projected to rise by 1.5 percentage points of GDP in the median OECD country over the period shown. Fiscal pressures could also be even higher than shown in Figure 5, given it excludes important sources of expenditure pressure, such as climate change adaptation (Guillemette and Turner, 2021^[14]).

Given these fiscal pressures, maintaining status quo would increase the tax burden on the active population, require large scale public spending cuts or increase public debt levels. Absent policy changes, ageing pressures could increase the public debt burden by an average of 180% of GDP in G20 advanced economies and 130% of GDP in G20 emerging economies over the next three decades (Rouzet et al., 2019^[15]). Japan is one of the OECD countries where these challenges are most exacerbated (see Box 4).

Box 4. Fiscal challenges in Japan's rapidly ageing society

Japan's gross government debt of 259% in 2021 is the highest of any OECD country. The pandemic pushed up public debt to even higher levels and the country faces mounting budget pressures from a rapidly ageing and shrinking population.

Japan experienced the fastest ageing of its population among G20 countries, with 47 people older than 65 per 100 working-age (20-64 years old) adults in 2015, up from 19 in 1990. By 2060, the working-age population is projected to shrink by about 25 million people, and the share of people over 80 is expected to rise from 8% in 2015 to 18%. Although the impact of "old ageing" will depend on the extent to which the health status of the elderly at a given age improves over time, it is likely to raise demands on health and care systems to address dependency.

Population ageing has had a strong impact on social spending. As well as high levels of spending on health and long-term care, public expenditure on pensions in Japan is third highest in the G20. In addition to increased spending on pensions and health and long-term care, higher income inequality and relative poverty rates among the elderly will necessitate further increases in social spending. Population ageing thus creates strong pressure on fiscal sustainability.

Sources: (Rouzet et al., 2019^[15]) and (OECD, 2022^[16])

Greater gender equality in the labour market is one way through which these public finance pressures can be alleviated. Increased participation of women offers the opportunity to increase employment and productivity. Increasing employment and income brings additional tax revenue and social security contributions. It can also reduce demand for public finance transfers and welfare benefits. Together, these factors help improve the outlook for fiscal sustainability.

The role of gender budgeting in helping close gender employment gaps

The economic and fiscal outcomes that can be achieved through increasing the participation of women in the labour market are clear. The question is then how to ensure that this is more widely understood and the actions that are needed to achieve these outcomes. There is a need for action on several fronts. Businesses have a key role to play, ensuring work environments that support staff in balancing work with family life. Governments must also act, prioritising policies that help support women's participation in the workforce.

Gender budgeting is a key tool of gender mainstreaming. Gender mainstreaming helps integrate gender considerations into government decisions. Gender budgeting is unique in that it helps governments to select and prioritise budget measures with positive outcomes for both gender equality and economic growth. It can be used alongside other tools of gender mainstreaming tools to develop a whole-of government approach to achieving gender objectives, encompassing legal, regulatory, policy and budget decisions.

Many governments already recognise the specific role of gender budgeting in driving transformational change. More than half of OECD countries now use gender budgeting to support decision making (Downes, 2020^[17]).

Gender budgeting helps identify budget measures that support gender equality and economic growth

Government tax and spending decisions have powerful social, environmental, and economic implications for a country, shaping people's choices regarding work and economic participation. Budget measures that can have a particularly important impact on women's participation in the workforce include:

- Adjustments to paid parental leave policies
- Tax and benefit adjustments for second earners
- Subsidies for high childcare and long-term care costs, or funding to raise the supply of care places
- Funding for schemes to help reduce gender pay gaps, such as education and training to help women access higher wage professions and sectors

Gender budgeting can help bring greater awareness of the economic and fiscal benefits of gender equality and stimulate a conversation around the budget measures that could most effectively increase women's participation in the labour market. The budget measures needed to increase women's economic participation in each country may vary according to the specific barriers that women face. Examples of budget measures identified as important in Australia to increase women's participation in the workforce are provided in Box 5.

Box 5. Policies in Australia to boost women's workforce participation

The 2022-23 October Budget was accompanied by a Women's Budget Statement which outlined a range of initiatives aimed at 'moving the dial' through an overarching commitment to advance gender equality. Key policies that reduce barriers or disincentives to women's workforce participation and support women's economic equality and the economy are shown in the table below:

Action area	Examples of budget measures
Cheaper childcare	- Increases in Child Care Subsidy rates will reduce out-of-pocket fees for around 96% of families who use formal early childhood education and care. - Families will continue to receive the existing higher subsidy rates for their second and subsequent children aged 5 or under in care.
Expanding paid parental leave	- Investment to modernise the existing Paid Parental Leave scheme and promote a more equal distribution of paid and unpaid work within households. - Expansion of the scheme to provide a total of 26 weeks of Parental Leave Pay, to be shared by parents, with additional 'use it or lose it' provisions to be determined. - Removing the current requirement that primary claimants of parental leave must be the birth parent. - Expansion of eligibility through the introduction of a family income test, which can be used in the case where families do not meet the individual income test and will benefit families where women are the primary income earners. - Allowing fathers and partners to access the Government scheme at the same time as employer-funded leave, to further incentivise take-up.
Addressing pay inequality	- Embedding gender equity in the Fair Work Commission's decision-making process and establishing a statutory equal remuneration principle. - Public reporting of the gender pay gaps of large companies, with 100 or more employees.
Improving job security and reducing industry and occupational segregation	- Making job security an object of the <i>Fair Work Act 2009</i> and limiting the use of fixed-term contracts. - Strengthening the right to request flexible working arrangements. - Growing skills across digital, tech and emerging decarbonising industries, creating new employment and educational opportunities for women. - Including a focus on increased gender diversity across industries and occupations in key national policy, such as the AUD 1 billion National Skills Agreement. - An independent Pathway to Diversity in STEM Review to improve equity and representation of women and other under-represented groups in STEM education and work.

Source: (Australian Government, 2022^[18])

When faced with a range of budget options to address gender gaps in the labour market, gender budgeting helps shine a light on the macroeconomic and distributional impacts of individual measures, as well as overall budget policy, so that decision makers can adopt the most effective and sustainable budget measures to support gender equality goals while boosting economic growth.

Approaches to gender budgeting vary, but some tools are particularly helpful in understanding the impact of budget policy on closing gender employment gaps

When designing and implementing gender budgeting, it is worth bearing in mind that there is no one-size-fits-all approach. While countries can benefit from the study of existing models, experiences, and international standards - each country should design an approach which fits their own national context.

Analytical and reporting tools of gender budgeting can be particularly helpful in terms of understanding and communicating the impact of budget policy on closing gender gaps in employment. These include:

- **Gender impact assessments of budget measures:** this tool can be used to assess individual budget measures for their impact on gender equality goals. These assessments can be undertaken in advance of the budget, to help inform the design of the policy and select policies with greatest impact. The assessment can also be undertaken after the budget measure has been implemented to assess what impact it had on gender equality.
- **Distributional assessment of tax and welfare measures by gender:** this tool involves a quantitative assessment of how tax and welfare measures (individually or as a whole) impact gender equality goals.
- **Gender dimension in spending reviews:** this involves gender equality being included as a distinct dimension of analysis for spending reviews. Thus, when a spending review is being undertaken, one of the factors that would be considered would be the impact of the spend on gender equality goals.
- **Gender Budget Statement:** a statement provided alongside the draft budget that includes information relevant to how the budget impacts gender equality goals. As well as supporting government decision making, it supports parliamentary oversight as well as greater transparency and accountability. Some elements it might include are:
 - **Gender impact assessment of the budget:** this is an assessment of how a package of budget measures, or the budget as a whole, impacts gender equality goals. This assessment is usually based on aggregated information from gender impact assessments of individual budget measures.
 - **Information on progress towards gender goals:** detailed explanation of how budget measures advance the government's gender equality agenda, by reference to established gender objectives and indicators.

The use of these tools as part of the budget process can provide clarity on the expected outcomes from policies and programmes included in the budget. This analysis may prompt decision makers to re-assess existing budget measures or introduce new budget proposals to make the budget more effective at meeting gender goals. The analysis can also help decision makers improve the design of key policy measures seeking to close gender gaps in the labour market. Overall, gender budgeting aims to facilitate improved budget decision making, ensuring well-thought out and evidenced based budgetary policy that is effective at meeting goals in relation gender equality and the labour market.

An example of gender budgeting being used to support the goal of equal and full participation in the economy in Canada is provided in Box 6.

Box 6. Gender budgeting to close gender gaps in the labour market in Canada

Canada introduced gender budgeting in 2016 and has since been developing its gender budgeting practice every budget cycle. The Gender Results Framework was introduced in Budget 2018 as a whole-of-government tool to articulate gender equality priorities and goals in Canada, with matching indicators to track developments toward these goals. The Framework includes a goal to have “equal and full participation in the economy”, under the overarching pillar of Economic Participation and Prosperity.

Objectives related to this goal include:

- Increased labour market opportunities for women, especially women in underrepresented groups
- Reduced gender wage gap
- Increased full-time employment of women
- Equal sharing of parenting roles and family responsibilities
- Better gender balance across occupations
- More women in higher-quality jobs, such as permanent and well-paid jobs

Budget proposals that contribute to the pillars of the Gender Results Framework are tagged as part of the budget process. Each budget proposal must also be accompanied by a summary of the Gender Budget Analysis Plus, which provides an assessment of how the proposal impacts different women, men, and gender diverse people, taking into account intersecting demographic characteristics (e.g., age, income, population group, health characteristics, etc.). This provides the Minister of Finance with information that supports the consideration of gender and diversity in budget decisions, and helps identify progress towards gender equality goals.

A key initiative that has been included in the budget to progress the goal relating to equal and full economic participation is increased support for early learning and childcare (ELCC). The ELCC initiative was introduced in Budget 2021 with the aim to reduce fees for parents and children in regulated childcare by 50% on average, by the end 2022, with a goal of reaching 10 Canadian dollars (CAD) per day on average by 2026, everywhere outside of Quebec, where prices are already affordable through its well-established system. To support this, Budget 2021 committed to investing almost CAD 30 billion over five years to provide permanent ongoing funding, working with provincial, territorial, and Indigenous partners to build a Canada-wide, community-based system of quality childcare, and to ensure that early childhood educators are at the heart of the system. The Government of Canada recognises that investing in childcare not only provides jobs for workers, the majority of whom are women; but it also it enables parents, particularly mothers, to reach their full economic potential.

Source: (Government of Canada, 2021^[19])

The role of gender budgeting in promoting budget measures that are supportive of closing gender gaps in employment may be showcased as part of a Gender Budget Statement accompanying, or incorporated into the budget. Information on the measures, and their economic and fiscal impacts.

Gender budgeting is not without its challenges. Robust gender budgeting analysis relies on good availability of gender disaggregated data, to help give an accurate picture of how budget measures impact gender equality objectives. The successful implementation of gender budgeting also requires training and capacity development within both the central budget authority and line ministries. This helps sensitise government officials to the potential impacts of policies on gender equality goals, and techniques for quantifying these impacts. A key challenge is also analytical capacity and analytical models, for example,

to undertake distributional impact analysis of budget measures. Even where gender budgeting produces robust analysis, it can also be a challenge to ensure this information is used in budget decision making. Understanding these potential challenges will help countries put in place a more impactful approach.

Conclusion

Demographic trends such as ageing populations and low fertility rates are reducing the working age population in most OECD countries and increasing the cost of pensions and health and long-term care. Fewer workers supporting more retirees who live longer will give rise to increasing pressure on public finances at a time when public debt levels are already very high. Governments must think of ways to counter these trends so as not to pose greater risk to long term fiscal sustainability.

Increasing female participation in the labour market is one way through which public finance pressures related to demographic trends can be alleviated. Higher levels of female employment will boost GDP, with countries that have large gender gaps in the labour market standing to gain the most. Increasing the number of women in the workforce may also bring higher levels of productivity because women bring a different set of skills to the workplace, broaden perspectives, enhance decision making or are more innovative in disciplines where they are underrepresented.

Closing the gender gap in the labour market will require concerted policy action. Governments may need to put in place new ways of working that will help them identify and prioritise policy interventions that will support increased female participation in the workforce.

Gender budgeting can be an important element of a whole-of-government approach to closing gender gaps in the labour market, helping decision makers adopt the most effective and sustainable budget measures to support gender equality while boosting economic growth. Tools of gender budgeting, such as gender impact assessments and distributional analysis of tax and welfare measures, provide information on the impact of proposed budget measures on gender equality objectives. This information helps support more informed budget decision making, mobilising resources towards where they can be most effective. Where these budget interventions are supported by wider government interventions, including necessary legal and regulatory reforms, they can help bring about the change needed to increase women's participation in the labour market, bringing positive economic and fiscal outcomes for all.

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Gender perspectives in spending review

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Public finances will be under increasing pressure in the medium term. Tools such as spending review, which help governments prioritise and reallocate spending, are likely to be increasingly important. Integrating a gender perspective will ensure that budget reprioritisation does not increase gender gaps, but instead supports the achievement of gender goals – which can bring economic and fiscal dividends. This paper highlights the different ways in which countries are experimenting with integrating a gender perspective to spending review, as well as some of the key considerations that should be taken into account in the process.

JEL classification: H61, J16, E66

Keywords: public finance, spending review, gender budgeting

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This article is one of the two articles concerning gender budgeting published under the Volume 2022, Issue 3 of the *OECD Journal on Budgeting*. Gender objectives can be overlooked in times of fiscal pressure but the first of these articles highlights the economic and fiscal dividends that can be achieved from closing gender gaps. It also illustrates the role that gender budgeting can play in helping achieve these dividends. This second article considers how approaches to gender budgeting may need to be altered in the context of tighter budget constraints. Specifically, it looks at how gender considerations can be brought into spending review – a tool which is likely to become increasingly important in helping governments prioritise and reallocate spending.

Executive summary

The COVID-19 pandemic, its economic consequences and policy responses inflicted a severe shock on government finances everywhere, which were in many cases already stretched. The long-term budget challenges that were already in place continued to mount during the crisis. Interest expenditures are now increasing significantly as well. Russia's war against Ukraine has also put new pressures on spending, as well as greatly adding to overall economic uncertainty. To ensure fiscal sustainability, governments will have to revisit the allocation of public spending across budget items and functional areas.

Governments will need tools that can help them spend better in this tightened fiscal context. Spending reviews are especially relevant, being a core instrument for expenditure prioritisation and reallocation. Spending reviews provide governments with means to support the sustainability of public finances through systematic analysis of existing expenditure. The use of spending reviews has increased in recent decades. Their use significantly increased after the 2008 global financial crisis, when countries looked for ways to get back on track by ensuring that spending supported a sustainable recovery. Nearly all OECD countries now use spending reviews, some as a routine part of the budget process.

In a tighter fiscal context, there is a risk that government objectives, such as those relating to gender equality, become a lower priority. However, closing certain gender gaps can help alleviate fiscal pressures. Specifically, increasing women's participation in the labour market can help mitigate challenges relating to an ageing population and bring positive GDP gains, as well as improvements in fiscal sustainability. As part of a broader government effort to make progress on gender equality goals, gender budgeting can help governments close these gaps. It is rooted in the gender mainstreaming approach, which recognises the need to remove inherent gender biases from key government processes. Gender budgeting helps shine a light on the macroeconomic and distributional impacts of budget policy so that decision makers can adopt the most effective budget measures to support gender equality while boosting economic growth.

For gender budgeting to continue to help close gender gaps in a tightening fiscal context, countries may need to revisit the suite of tools that they use. For example, tools such as *ex ante* gender impact assessments may no longer be sufficient in the context of limited new budget proposals. In contrast, the integration of a gender perspective into spending reviews could be increasingly important, ensuring that gender equality considerations are taken into account in expenditure reprioritisation decisions.

An analysis of practices across OECD countries suggests there are several ways in which countries can integrate a gender perspective into spending reviews. Countries can undertake themed spending reviews of programmes, to help improve their efficiency at meeting gender equality objectives. Any savings identified may be reallocated to other gender equality programmes. Comprehensive spending reviews that are focussed on reprioritisation can look at the gender impact of proposed spending changes. This can help identify changes that would be counter to the government's overall priorities in relation to gender equality. It can also help open a discussion about alternatives for reprioritisation of spending that could instead promote, or at least not compromise, progress towards gender objectives.

For the integration of a gender perspective into spending reviews to be a success, countries need to ensure that there is a strong spending review framework, clear methodological guidance, good quality information and data on gender equality, and the necessary skills and expertise in the spending review team to understand the nuances of how budget policies relate to gender equality.

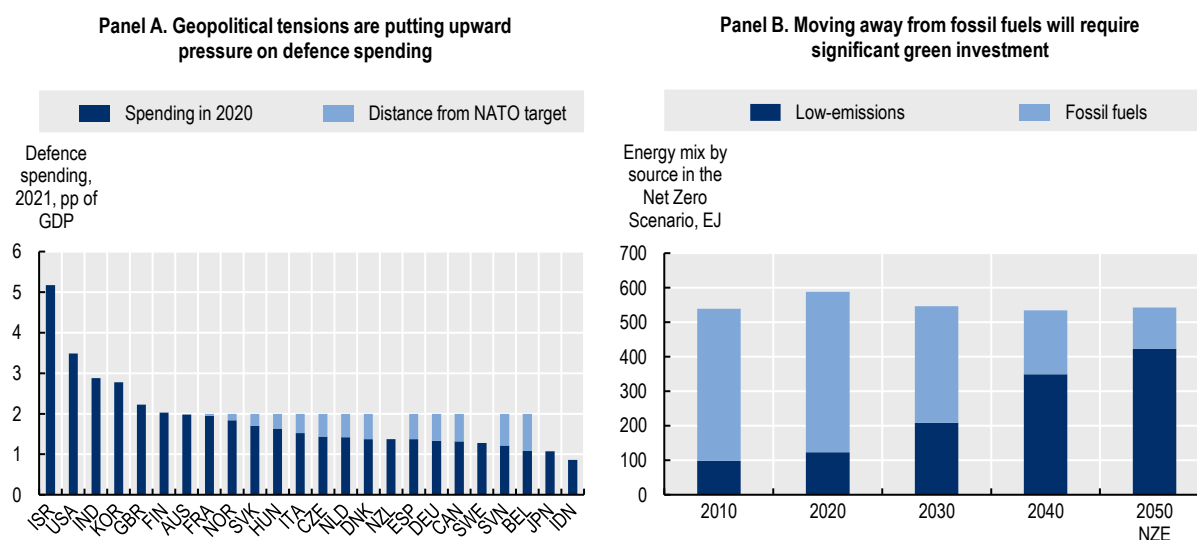
The current fiscal context and the growing use of spending review

A tightened fiscal context requires countries to revisit the allocation of public expenditure

Public spending in response to the pandemic brought about the largest one-year increase in debt since World War II. In the aftermath, many OECD countries had plans for fiscal consolidation. OECD countries were still in the process of recovering from the COVID-19 pandemic when Russia's war against Ukraine brought a further significant negative shock to the global economy.

The war in Ukraine also has immediate fiscal costs – including offsetting the impact of higher energy prices for households and firms in many countries. The war has also impacted future spending priorities. These include increased defence spending and an accelerated transition to clean energy (see Figure 6).

Figure 6. The war in Ukraine is generating new demand for public spending



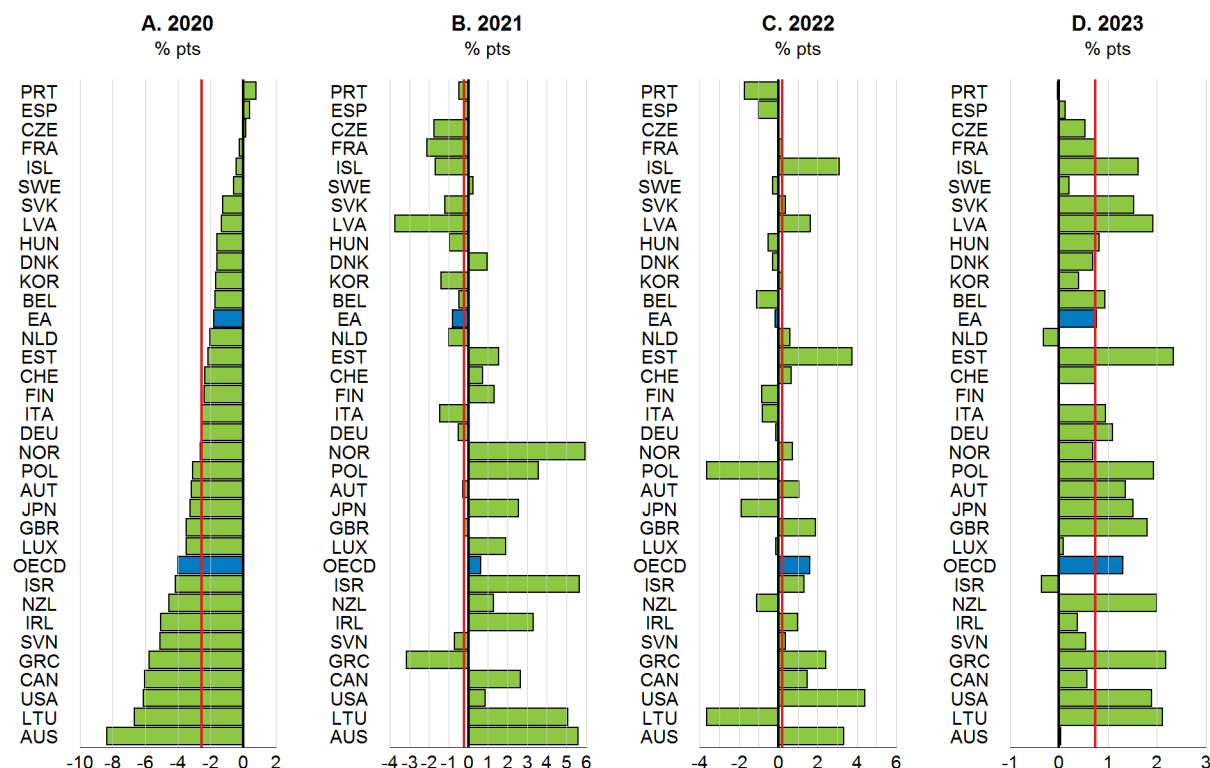
Note: NZE refers to the Net Zero Scenario. The figure identifies the projected total energy supply required to bring global energy-related CO₂ emissions to net zero by 2050 and limit global temperature rise to 1.5 °C. Fossil fuels include oil, coal, and natural gas as well as the use of fossil fuels with Carbon Capture, Use and Storage and in non-energy uses. Low emissions includes traditional use of biomass, nuclear, hydro, wind, solar and modern biomass. EJ is exajoules.

Source: (OECD, 2022^[1])

Many OECD countries have slowed their plans for fiscal consolidation (see Figure 7).

Figure 7. New budget priorities have often moderated consolidation efforts

Change in the underlying primary balance, in % of potential GDP



Note: Vertical lines indicate the median for the available OECD economies.

Source: (OECD, 2022^[2])

With increased spending on defence and clean energy, budgets are likely to become increasingly tight in other areas. Beyond 2023, rising debt service burdens are also likely to compound challenges for the public finances. As a result, countries will have to revisit the allocation of public spending across budget items and functional areas (OECD, 2022^[2]).

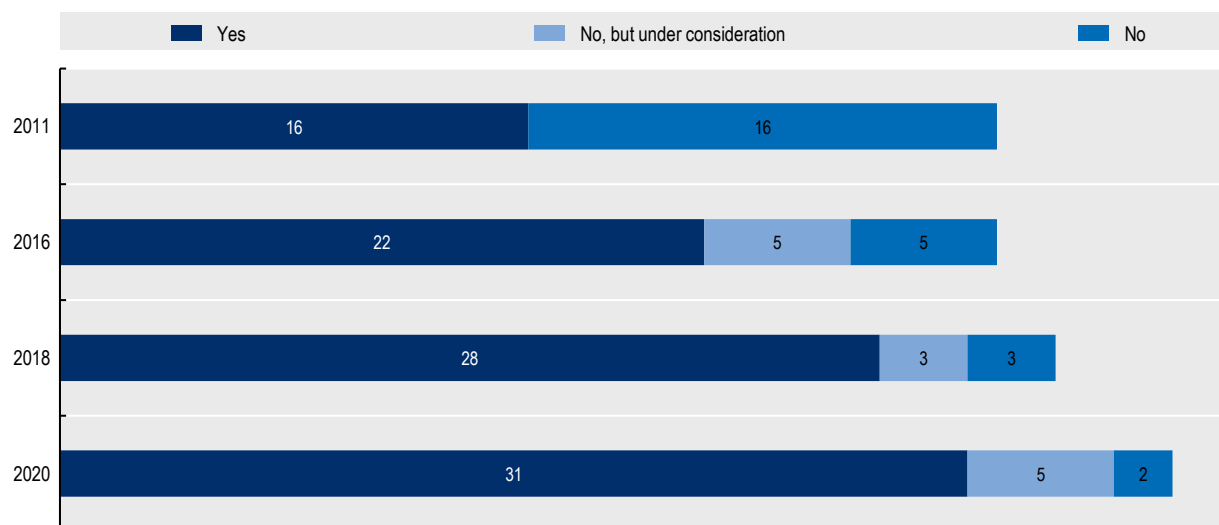
Spending reviews support decision making in a tightened fiscal context

Budget tools such as spending review are especially relevant in the current budgetary context. Given constrained budgetary space, spending reviews can assist governments make decisions through looking critically into ways to prioritise and reallocate expenditure.

The use of spending reviews has increased in recent decades. Their use significantly increased after the 2008 global financial crisis when countries looked for ways to get back on track by ensuring spending supported a sustainable recovery. Nearly all OECD countries now use spending reviews, some as a routine part of the budget process (see Figure 8). This includes countries with longstanding practices such as the Netherlands and Denmark as well as those who have recently adopted the practice, such as the Czech Republic and Belgium.

Figure 8. The use of spending reviews is growing

Adoption of spending reviews 2011-2020



Source: OECD Spending Review Survey 2020

Spending reviews are tools for systematically analysing the government's existing expenditure. They are clearly linked to the budget process. The purposes of a spending review include:

- Enabling the government to manage the aggregate level of expenditure.
- Aligning expenditure according to the priorities of the government.
- Improving effectiveness within programmes and policies (Tryggvadottir, 2022^[3]).

Over recent years, countries have evolved their focus to paying particular attention to improving efficiency and impact towards government priorities. *Spending reviews help incorporate efficiency and value-for-money considerations in budgetary policy making. When used well, spending reviews can contribute to the sustainability of public finances and ensure that financial resources are allocated to high-priority areas. However, in times of fiscal constraint, spending reviews may focus on their original function, enabling the government to manage the aggregate level of expenditure through helping identify wasteful or inefficient spending.*

Tackling gender inequalities in a tightened fiscal context

Closing gender gaps can help alleviate fiscal pressures and support COVID-19 recovery

Although gender equality objectives may be overlooked in times of greater fiscal pressure, tackling certain gender gaps may actually help provide a boost to the economy and public finances. Increased fiscal constraint can give rise to a “back to basics” approach in government. The pressures arising from tighter budget envelopes may mean that gender equality goals become less of a priority, and relatively recent reforms such as gender budgeting fall by the wayside. However, closing gender gaps can bring economic and fiscal dividends.

Greater gender equality in the labour market is one way through which these public finance pressures can be alleviated. Increasing women's participation in the labour market and removing obstacles to fertility choices can help mitigate challenges relating to an ageing population and bring positive GDP gains, as

well as improvements to fiscal sustainability. Increasing employment and income brings additional tax revenue and social security contributions. It can also reduce demand for public finance transfers and welfare benefits.

Closing gender gaps in the labour market can also support the COVID-19 recovery. The pandemic impacted women particularly hard because they tend to have more responsibilities in relation to care for others (they are more likely to work in the care sector and provide most unpaid work at home). Women are also more likely than men to work in social sectors — such as services industries, retail, tourism, and hospitality — that require face-to-face interactions and which have been most impacted by containment measures, as well as the sectors with higher non-regular job contracts and informality (OECD, 2020^[4]). This gave rise to higher female unemployment rates in some OECD countries. Ensuring that post-pandemic budgets support increased participation of women in the labour market can help mitigate any long-term impacts of the pandemic on gender inequality.

Given the cross-cutting nature of gender inequalities and considering that inherent gender biases can seep into the baseline of policies, budgets and other government action, there are several public governance tools that can be used to help improve the effectiveness of public policy in achieving gender goals. Gender budgeting is a tool that can help in relation to budget policy. It can help direct budgetary policy towards measures which will be effective in closing gender gaps, helping recover from the COVID-19 and bring economic and fiscal gains. Gender budgeting helps shine a light on the macroeconomic and distributional impacts of individual measures, as well as overall budget policy. Decision makers can use the information from gender budgeting to adopt the most effective and sustainable budget measures to support gender equality goals while boosting economic growth and fiscal sustainability.

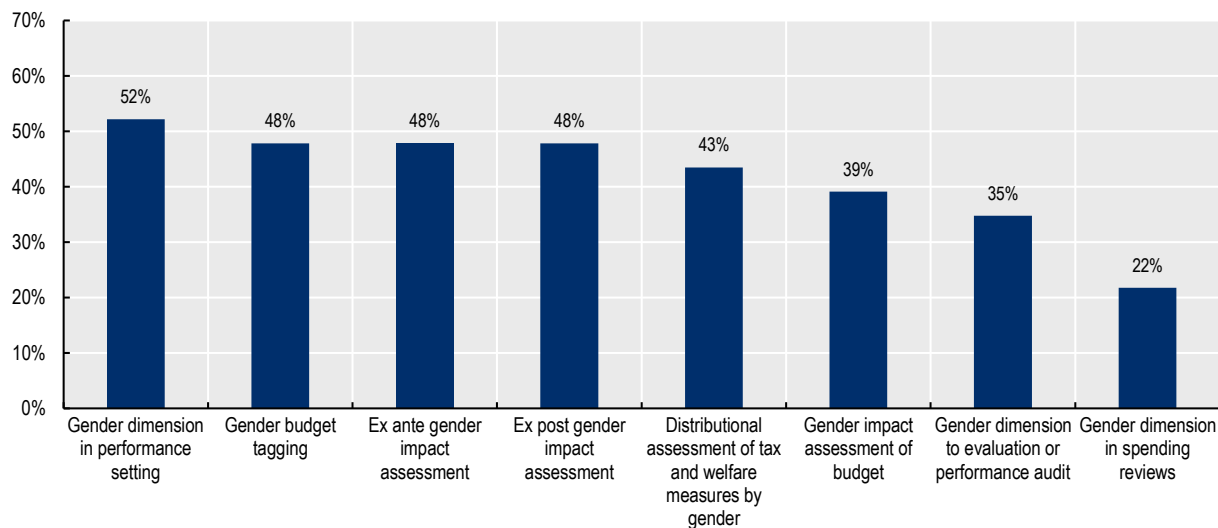
Gender budgeting can help close gender gaps, but may need to adapt to the fiscal context

Adopted as part of a whole-of-government approach encompassing legal, regulatory, policy and budget decisions, gender budgeting can be used by governments to help ensure that public policy become more effective at closing gender gaps. Tools of gender budgeting, such as gender impact assessments and a gender dimension in performance setting, gather evidence that brings gender equality considerations to the fore in budget decision making.

A key challenge in relation to gender budgeting in the current fiscal context is that gender budgeting tools often focus on highlighting the gender impact of new budget proposals. These tools may not be as good at capturing the impact of budget reallocations or cuts. For example, gender impact assessments are one of the most common tools of gender budgeting yet are rarely undertaken in relation to budget cuts.

For gender budgeting to continue to be useful in closing gender gaps in a tightening fiscal context, countries may need to revisit the suite of tools that they use. Figure 9 shows the most common gender budgeting tools used in OECD countries. Although approaches to gender budgeting vary, the following four tools are used by around half of OECD countries:

- **Gender dimension in performance setting:** The systematic inclusion of performance objectives relating to gender as part of performance setting/performance budgeting.
- **Gender budget tagging:** The identification and tracking of budget measures relevant to gender equality objectives.
- **Ex ante gender impact assessment:** Assessing budget measures, in advance of their inclusion in the budget, specifically for their impact on gender equality.
- **Ex post gender impact assessment:** Assessing budget measures, after their introduction/implementation, specifically for their impact on gender equality.

Figure 9. Gender budgeting tools used in OECD countries, 2022

Note: Provisional data

Source: (OECD, Forthcoming^[5])

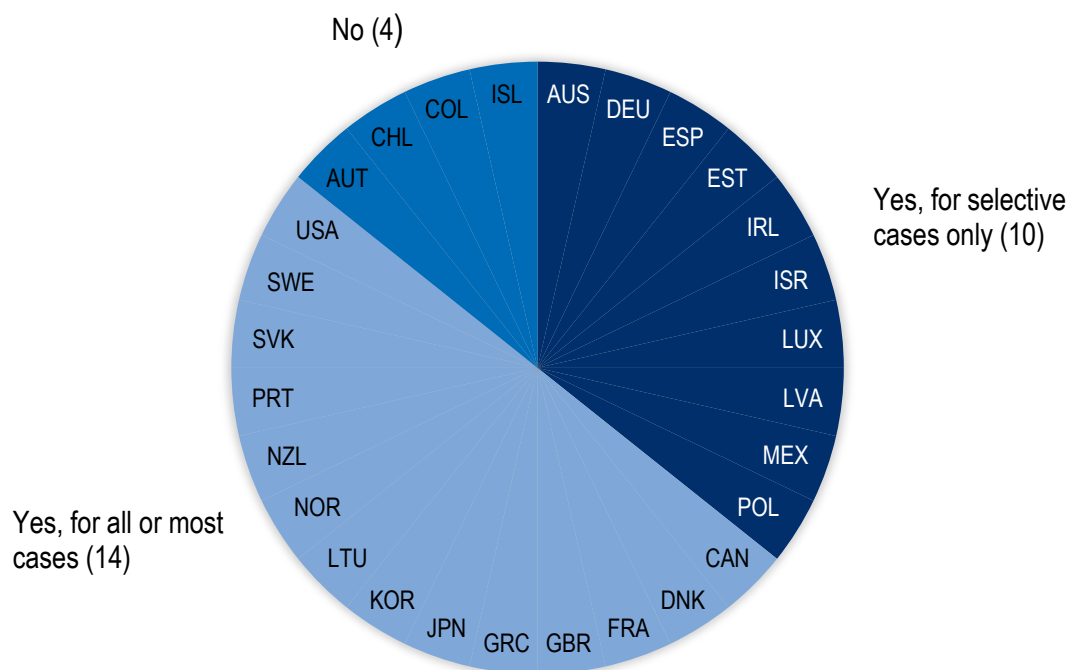
In revisiting the suite of gender budgeting tools in light of a tightened fiscal context, countries might consider whether they have tools in place that provide information that is used in decision making on budget cuts or reallocations. For example, tools that would help identify the gender impact of cutting or reallocating monies from existing budget programmes.

Tools such as *ex post* gender impact assessments, a gender dimension in performance setting and a gender dimension to evaluation or performance audit can all provide useful information on how well existing budget programmes are delivering gender goals. This can be used in making choices about budget reallocations. However, performance information, and information from evaluations and performance audits are often under-utilised in budget decision making (OECD, 2016^[6]).

On the other hand, spending review results are often considered in the budget process (see Figure 10). However, it is very rare for a gender perspective to be integrated in the spending review process. This is achieved through drawing in information on the gender impact of spending measures, and changes to these measures, to spending review process. Given the growing use of spending reviews in informing budgetary policy, integrating a gender perspective into the analysis has the potential to be impactful in bringing to the fore consideration of the extent to which budget cuts or reallocations impact gender equality goals.

Figure 10. Spending review results are often considered in the budget process, 2020

Are spending review results considered in the annual budget process (negotiations)?



Source: OECD Spending Review Survey 2020

Integrating gender perspectives into spending review

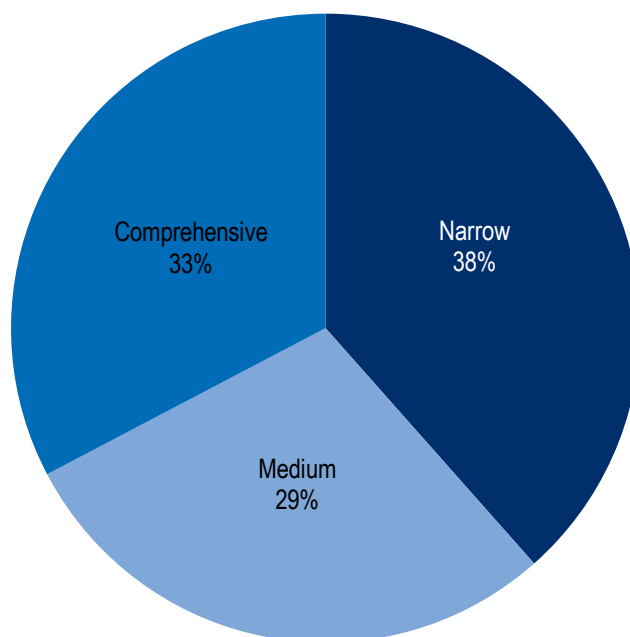
In the context of a tightening fiscal outlook, countries will have to revisit the allocation of public spending across budget items and functional areas. Spending reviews can be a particularly helpful budget tool in supporting decisions on reallocation. A gender perspective to spending review can help ensure:

- Improved efficiency and impact of programmes tackling gender inequality
- Any decisions to reallocate expenditures from one area to another consider the potential for these decisions to impact on gender inequality
- Budget cuts or re-prioritisation of expenditure does not increase gender gaps, but instead supports the achievement of gender goals

Spending review practices differ across countries. They may be comprehensive in nature and focus on the total government expenditures, or they may be themed and focus on expenditures in specific sectors or areas (see Figure 11). They also vary in frequency and duration.

Figure 11. Scope of spending reviews in OECD countries

Spending reviews undertaken over the period 2016-2020



Note: A narrow spending review considers approximately 0-5% of total government expenditure, a medium spending review covers approximately 5-20% of total government expenditure and a comprehensive spending review covers approximately 20-100% of total government expenditure.

Source: OECD Spending Review Survey 2020

Existing OECD practices in relation to integrating a gender perspective into spending reviews

Analysis of practices across OECD countries suggests there are different ways in which countries can use spending review to help progress gender equality goals. This includes:

1. **Themed spending reviews in the area of gender equality:** Using spending review to improve the efficiency and effectiveness of programmes which directly aim to progress gender equality goals. Savings identified through these spending reviews may be reallocated to other gender equality programmes or returned to the government's consolidated account.
2. **Incorporating gender considerations into regular themed spending reviews.** Broadening the analysis undertaken as part of regular themed spending reviews to include gender equality aspects. The aim is to gather information on the impact of spending in a particular area on gender goals. This information can be considered when formulating any recommendations about expenditure reprioritisation flowing from the spending review.
3. **Incorporating gender considerations into comprehensive spending reviews.** Broadening the analysis undertaken as part of comprehensive spending reviews to include gender equality aspects. This can help identify spending that is counter to the government's overall priorities in relation to gender equality. It can also help provide an evidence base on how different spending changes would impact gender equality goals. The aim is to ensure that any final recommendations on expenditure reprioritisation do not increase gender gaps, and instead support the achievement of gender goals.

Themed spending reviews in the area of gender equality

Themed spending reviews look at individual programmes, or a collection of programmes relating to a specific policy area. For example, Ireland publishes Social Impact Assessment Papers as part of their spending review process, and some of these look specifically at programmes which target equality with a view to examining how well these programmes are working (see Box 7).

Box 7. Social impact assessment papers as part of the spending review process in Ireland

In Ireland a continuous cycle of spending reviews is undertaken to support the Government's deliberations in setting multi-annual expenditure ceilings. These are led by the Department of Public Expenditure and Reform with support from members of the Irish Government Economic and Evaluation Service located across departments.

The spending reviews provide the Irish Government with the opportunity to examine how public resources have been used, to set out how public resources could be used – to prioritise – and to examine where new spending proposals can be accommodated within existing budgets. The spending reviews build on internal evaluation work and examine how well programmes are working, expenditure is being managed, the challenges and pressures that are likely to arise in the medium term, and reforms to be carried out to manage these pressures.

As part of the spending review project, Ireland has a Social Impact Assessment (SIA) series. This aims to help develop the process of budget and policy proofing as a means of advancing equality. The process of “proofing” budgets and policies involves analysing their impacts in relation to key social outcomes. In recent years, the SIA Framework has been applied to policy areas relevant to gender equality including targeted childcare programmes, female labour force participation, national minimum wage, and equality budgeting. The analysis aims to identify how budgetary policy impacts different demographic groups. It makes it possible to look at the impact of changes to government spending on equality and the implications for outcomes.

Source: (Irish Government Economic and Evaluation Service, 2022^[7])

Themed spending reviews in an area of gender equality policy can be used to improve the efficiency and effectiveness of spend in this area. For example, the government may choose to undertake a spending review which examines the key programmes supporting increased participation of women in the workforce, such as childcare subsidies, training and skills development for women, and support for women entrepreneurs. This spending review may try and understand the effectiveness of the different programmes at helping women enter the labour market. Information on the efficiency and effectiveness of the programmes can be used to make recommendations on how policies and spending might be adjusted to better achieve increased participation of women in the workforce. Any potential savings identified through these spending reviews may be reallocated to other policy areas that benefit gender equality goals or returned to the government's consolidated account.

Incorporating gender considerations into regular themed spending reviews

Regular themed spending reviews may look at programmes that do not have a primary objective of closing gender gaps, yet still indirectly impact gender equality objectives. Countries may choose to incorporate gender considerations into all or some of these themed spending reviews. For example, Spain does not regularly incorporate gender considerations into themed spending reviews but has done where gender considerations have been deemed relevant. Germany has also recently experimented with incorporating a gender lens to themed spending reviews (see Box 8).

Box 8. Themed spending reviews considering the impact of policy on gender equality

Spain

Spending reviews in Spain were introduced in 2017 and undertaken as a three-year project broken down into phases. The reviews were undertaken by the independent fiscal institution (AIReF – the Independent Authority for Fiscal Responsibility). The project aimed to evaluate significant public expenditure programmes.

The second phase of spending reviews included an evaluation of four policy areas, including tax benefits. Although other spending reviews did not include consideration of the impact of the policy on women, this particular spending review did, in recognition of the impact of tax benefits on labour market participation. The spending review found that joint income tax has a negative impact on the participation of second earners in the labour market (mainly women on low incomes) and social deductions have a positive effect. AIReF used this information to make recommendations to the government on incentives that could be used to offset these negative effects and increase the participation of second earners in the labour market, thus helping close the gender employment gap in Spain.

Germany

Since 2015, the Federal Ministry of Finance has led several spending reviews on different topics, in co-ordination with the relevant ministries. This informs the preparation of the federal budget, helping improve the effectiveness and efficiency of specific measures or programmes. Spending reviews also support budget reprioritisation as well as the creation of fiscal space for new budget measures.

The 2019/20 spending review analysed selected funding programmes in the areas of further education, labour market re-entry and business start-ups. For the first time in a spending review, the government integrated a gender perspective. Specifically, the spending review looked at the extent to which gender considerations were considered in the execution of the funding programmes. It used this information to make recommendations on how gender considerations could be better taken into account in the future, to help improve the programmes outcomes relating to gender equality.

Sources: (AIReF, 2020^[8]) and (Bundesministerium der Finanzen, 2021^[9])

Integrating a gender perspective to regular themed spending reviews can help bring in information on the impact of programmes on gender equality goals. This information can be considered when formulating recommendations about expenditure reprioritisation flowing from the spending review. For example, the review may recommend that spending is reallocated away from programmes that negatively impact gender goals, or that measures are redesigned to have a more positive impact on gender equality.

Incorporating gender considerations into comprehensive spending reviews

Incorporating gender considerations into comprehensive spending reviews allows governments to look at how overall budgetary policy impacts gender equality goals. This might be done through drawing information on the gender impact of spending measures, and changes to these measures, into the spending review process. In many instances there will be existing analysis that can support this (e.g., relevant gender impact assessments or performance audits with a gender dimension). In other instances, new analysis may need to be undertaken. In the United Kingdom, there are examples of comprehensive spending reviews at both the national and subnational level incorporating equality considerations (see Box 9).

Box 9. Examples of comprehensive spending reviews with an equality perspective

United Kingdom

The UK Government undertakes comprehensive spending reviews which collect departmental budget proposals. These proposals are assessed by Ministers who then put forward a final package of measures as part of the government's budget.

The most recent spending reviews were undertaken in 2020 and Autumn 2021. Ministerial decisions related to these spending reviews were informed by evidence provided by departments to HM Treasury on the effect of policies on those with protected characteristics, such as age, disability, and sex. This is in line with the UK Government's legal duties set out in the Public Sector Equality Duty. In addition, in making decisions as part of these spending reviews, the UK Government considered the impacts of budget measures on the government's commitment to full, genuine gender equality. HM Treasury and HM Revenue and Customs also published Tax Information and Impact Notes for individual tax measures in the Budget that include assessments of their expected equalities impacts.

The result was that the final package of spending included in these reviews included measures likely to disproportionately benefit women, including an increase to the National Living Wage, and new funding to increase the hourly rate paid to childcare providers.

United Kingdom – Scotland

The Scottish Government undertakes comprehensive spending reviews that outline its high-level spending plans to deliver its Programme for Government and other political commitments.

The government's most recent spending review – its 2022 Resource Spending Review – was accompanied by an Equality and Fairer Scotland Statement. It looked at nine key opportunities/challenges related to equality and fairness and set out commitments in the spending review that responded to these. For example, the first opportunity/challenge related to inequality in the labour market.

Equality was also considered through the spending review process – both the external consultation process and the internal elements of the spending review. As part of the public consultation, the government asked respondents to provide views on equality impacts that should be considered in the context of the spending review's priorities and the primary drivers of public spending. Throughout the internal process to develop and agree proposals for the spending review, the government integrated various elements of impact assessment, building on available evidence and existing assessment.

Source: (HM Treasury, 2020^[10]), (HM treasury, 2021^[11]) and (Scottish Government, 2022^[12])

Integrating a gender perspective to comprehensive spending reviews can help identify spending that is particularly important in terms of achieving the government's overall priorities in relation to gender equality, as well as those programmes that are counter to these priorities. It can also show how different overall spending review choices might impact gender equality objectives. The government can use this information to ensure that recommendations on the re-prioritisation of expenditure direct monies towards programmes that help close gender gaps, and not towards those that increase gender gaps.

Important considerations for integrating a gender perspective into spending reviews

While incorporating a gender perspective into spending reviews can help improve the efficiency and impact of programmes tackling gender inequality and ensure that budget reallocations do not negatively impact gender goals, it can also pose certain challenges. These relate to the strength of the spending review framework, the role of political leadership in spending reviews, their dependency on good quality information and data and their resource-intensive nature.

A well-designed spending review framework should be a precondition to the integration of a gender perspective into spending reviews. A strong spending review framework helps spending reviews to function as a useful budget management tool. This includes clearly formulated objectives, distinct political and public service roles, clear governance arrangements, integration with the budget process, implementation of recommendations in an accountable and transparent manner, and full transparency of spending review reports and the review framework (Tryggvadottir, 2022^[3]). The addition of a gender perspective to spending reviews without a strong underlying framework risks over-burdening the spending review process, potentially undermining it.

A notable feature of spending reviews is their political leadership. Political leadership and support are critical to ensure the viability and sustainability of spending reviews. This leadership is particularly important at the inception where the objectives and scope of reviews are set, and at the conclusion where final decisions on adopting recommendations are made (Tryggvadottir, 2022^[3]). The inclusion of a gender perspective is thus likely to be influenced by the political commitment to gender equality and gender budgeting. This could make it easier to introduce a gender perspective to spending reviews when the political climate is right. It could also mean that the incorporation of gender considerations in spending review may not be sustained over different political cycles. This risk can be mitigated to a certain extent through the process becoming embedded institutionally. In support of this, the standardised methodological guidance for spending reviews should incorporate instructions on how a gender perspective is to be taken into account.

The quality of any spending review, and the decisions that flow from it, depend on the quality of the information that inform it. Evaluations and performance information frameworks can yield valuable information and should be available and used in the spending review process (Tryggvadottir, 2022^[3]). The integration of a gender perspective to spending reviews is supported by robust information and analysis from other tools of gender budgeting, most critically gender impact assessments, but also performance information with a gender perspective, and performance audits and evaluations with a gender perspective. This information and analysis, in turn, is supported by good availability of gender-disaggregated data. Evidence provided by these will be particularly useful for spending reviews undertaken over a short period, which rely more heavily on existing analysis and data.

Spending reviews are also resource-intensive and require specialist resources dedicated to the process. Several countries have established specialised units within finance ministries to co-ordinate spending reviews (Tryggvadottir, 2022^[3]). Integrating a gender perspective to spending reviews may require additional skills and capacities on the spending review team. Teams of budget experts are not always gender balanced, and the skills-sets of budget experts are not necessarily attuned to gender equality issues. For this reason, central budget authorities can benefit from greater gender balance among budget experts as well as broadened skillsets so that relevant staff are sufficiently equipped to integrate a gender perspective into the spending review process. It may also be that select gender policy experts from across government can help by providing information, analysis, and advice to the spending review team, to help the integration of a gender perspective to the process.

Conclusion

Public finances will be under increasing pressure in the medium term. Tools such as spending reviews, which help governments prioritise and reallocate spending, are likely to be increasingly important.

In a tighter fiscal context, there is a risk that government objectives such as those relating to gender equality, get overlooked, and tools such as gender budgeting fall by the wayside. However, the economic and fiscal cost of gender inequalities is high. Tackling gender goals such as increased participation of women in the labour market can bring positive GDP gains, as well as improvements to fiscal sustainability. Closing gender employment gaps can thus help alleviate fiscal pressures. Gender budgeting, as part of broader gender mainstreaming efforts, can support governments to do this.

For gender budgeting to continue to be effective in a tighter fiscal context, the approach and tools used may need to be revisited. Tools such as *ex ante* gender impact assessments may no longer be sufficient in the context of limited new budget proposals. While information from *ex post* gender impact assessments, a gender dimension in performance setting and a gender dimension to evaluation or performance audit is useful in understanding how well existing budget programmes are delivering gender goals, and thus informing expenditure reprioritisation, it is often under-utilised in budget decision making.

With the increasing role of spending reviews, and their known impacts on budget decisions, the integration of a gender perspective in spending reviews could become a particularly valuable tool. Integrating a gender perspective into spending reviews draws information on the gender impact of spending measures, and changes to these measures, into the spending review process. This information can be considered as part of the broader suite of information used to make the spending review recommendations. It can be helpful in ensuring that any reprioritisation resulting from the spending review does not exacerbate gender inequalities, and instead supports the achievement of gender goals.

Successful integration of a gender perspective into spending reviews depends on a strong spending review framework and relies on clear guidance on how it should be done. It also benefits from ensuring analysis from other tools of gender budgeting – particularly gender impact assessments – is robust. A rich set of gender-disaggregated data can be helpful in this regard. In addition, central budget authorities may benefit from greater gender balance and broadened skillsets in bringing in a gender perspective to spending reviews. This may involve seeking information, analysis, and advice from gender policy experts from across government.

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More than words: Potential roles for independent fiscal institutions (IFIs) in green budgeting

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Budgetary frameworks and instruments are increasingly being used to support and accelerate progress towards climate and environmental goals. This paper provides an overview of how OECD countries are implementing green budgeting and potential roles for independent fiscal institutions (IFIs) in monitoring these initiatives or in providing climate-related analysis as part of their existing mandates. It concludes with some key questions for the path ahead.

JEL classification: H60, H61, H68, Q51, Q56, Q58

Keywords: budget forecasting, carbon budgets, ESG (environmental, social, and corporate governance), green budgeting, independent fiscal institutions, fiscal policy surveillance, Paris Agreement

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Introduction

The 2015 Paris Agreement committed governments to action to reduce greenhouse gas emissions and limit climate change. Governments have reiterated that commitment in pandemic recovery programmes to ‘build back better’ with ambitious green investments. Meeting climate change commitments and delivering on green investment promises will require rapid economic, social and technological transformations and new budget frameworks to support them.

In current budget frameworks, governments commonly impose financial constraints on themselves to limit short-run temptation in pursuit of long-run sustainability. Could the good practices of institutional design that help governments stick to fiscal rules be applied to green promises?

One such practice has been the appointment of independent monitoring bodies to check the compliance of budget plans with codified fiscal objectives (Martins and Correia, 2021^[1]). Independent Fiscal Institutions (IFIs) like independent parliamentary budget offices and fiscal councils could be assigned to monitor many of the practical considerations of implementing “green budgets” that transform how governments prepare and present their fiscal plans to achieve environmental goals. On their own, or in collaboration with other independent bodies such as climate councils, the credible non-partisan analysis that IFIs provide would ensure that parliaments and the public have the information they need to evaluate climate policy options and hold governments accountable for their green commitments.

This paper provides an overview of how governments are greening their budgets in practice and the potential roles for IFIs, including case studies of IFIs already contributing to green analysis. It concludes with some key questions for the path ahead.

How budgets are going green

Just as a public debt crisis in one member country of a currency union can spill over to other members, greenhouse gas emissions are not constrained by borders. The EU has addressed the problem of externalities with a framework of internationally co-ordinated fiscal governance rules that governments implement domestically. Similarly, countries have committed to international climate change and environmental co-ordination frameworks with the expectation that adherents will implement domestic reforms to achieve them.

These efforts to co-ordinate the fight for a greener future look great on paper. And they have looked great on paper since the first meeting in 1995 of the Conference of the Parties of the United Nations Framework Convention on Climate Change. However, as with other collective action, efforts to fight climate change have been held back by a number of public choice challenges:

- **The common pool problem**, where individual countries overuse limited resources to maximise their own benefit at the expense of other countries.
- **The free rider problem**, where individual countries can take advantage of the responsible green governance of other countries in reducing global emissions to avoid hurting their own economic prosperity.
- **Intertemporal illusion**, where a share of the electorate does not fully understand the trade-off between current emissions and future global warming and future generations of voters cannot vote for their interest in early prevention.
- **Competition between political agents**, which arises when governments do not anticipate incurring the full political cost of climate inaction because of election uncertainty so they defer the introduction of strict measures to succeeding governments.

In his influential writing on how budget rules and institutions affect fiscal outcomes, Poterba (1996^[21]) suggested two mechanisms through which rules can help governments overcome these public choice challenges and stick to their targets:

- Rules provide an **objective benchmark** against which legislators, media, and the public can evaluate the government's proposals and implementation, raising the reputational and electoral costs of mismanagement.
- Rules allow policymakers to **deflect political repercussions** of corrective action, particularly under laws with automatic enforcement mechanisms.

Recognising these challenges and the potential of self-imposed constraints to overcome them, governments are committing themselves and future governments to rules-like frameworks of varying rigidity in pursuit of green objectives. For example, governments in Colombia, France, Italy and Luxembourg set up national low-carbon strategies to achieve their commitments to the Paris agreement. In the case of Italy, this took the form of a national long-term strategy to achieve "climate neutrality", requiring governments to achieve a 40% reduction in emissions by 2050 and remaining greenhouse gas emissions to be offset by carbon dioxide (CO₂) sequestration, storage and repurposing.

Denmark, Mexico, Norway and Sweden have passed more formal climate laws. In the case of Denmark, its objectives were enshrined in the *Climate Act*, which sets a rolling five-year target to eventually reduce Denmark's greenhouse emissions by 70% in 2030 compared to 1990 and to achieve climate neutrality by 2050 under UN emissions accounting rules. Some countries are operationalising their emissions targets with carbon budgets. Carbon budgets set a limit on emissions on a sectoral basis over a multi-annual period.

Box 10. International co-ordination agreements on green reform

The international 'rules' of climate change and environmental policy are set primarily by four international instruments: 1) the Paris Agreement; 2) the Sustainable Development Goals; 3) the Convention on Biological Diversity; and 4) The EU Climate Law.

The Paris Agreement, adopted in 2015 by 190 countries within the United Nations Framework Convention on Climate Change, commits countries to keep the rise in global temperature below 2 degrees Celsius this century. Countries who are party to the Agreement also commit to pursuing efforts to limit the temperature increase to 1.5 degrees Celsius. The Paris Agreement has acknowledged that public spending and decision making need to address climate change impacts (United Nations, 2015).

The United Nations Sustainable Development Goals (SDGs), adopted in 2015 by 193 countries, include several goals that are directly or indirectly related to climate change and environmental sustainability with accompanying targets and indicators that governments can use to measure progress toward implementation. Goal SDG 13, "Climate action" is directly related to climate change. It aims to "take urgent action to combat climate change and its impact" and focusses on the integration of climate change measures into national policies, the improvement of education, awareness-raising and institutional capacity on climate change mitigation, adaptation, impact reduction and early warnings. Other SDGs related to climate change and environmental goals include SDG 6 "Clean water and sanitation", SDG 7 "Affordable and clean energy", SDG 11 "Sustainable cities and communities", SDG 12 "Responsible consumption and production", SDG 14 "Life below water", and SDG 15 "Life on land".

The Convention on Biological Diversity was opened for signature at the Earth Summit in Rio de Janeiro on 5 June 1992 and entered into force on 29 December 1993. It has three main goals: 1) the conservation of biological diversity; 2) the sustainable use of its components; and 3) the fair and equitable sharing of benefits arising from genetic resources. Its objective is to develop national

strategies for the conservation and sustainable use of biological diversity, and it is often seen as the key document regarding sustainable development. The convention has two supplementary agreements, the Cartagena Protocol and the Nagoya Protocol (European commission, IMF, OECD, 2021^[3]).

The EU Climate Law (Regulation (EU) 2021/1119) enshrines the EU's goal to become climate neutral by 2050. It requires EU Institutions and Member States to take measures at the EU and national level to meet the target, and creates a system for monitoring progress. The Law was most recently amended in 2021 to tighten the target 2030 from a reduction in total greenhouse gas emissions in the EU countries from 40% to 55% compared to levels in 1990.

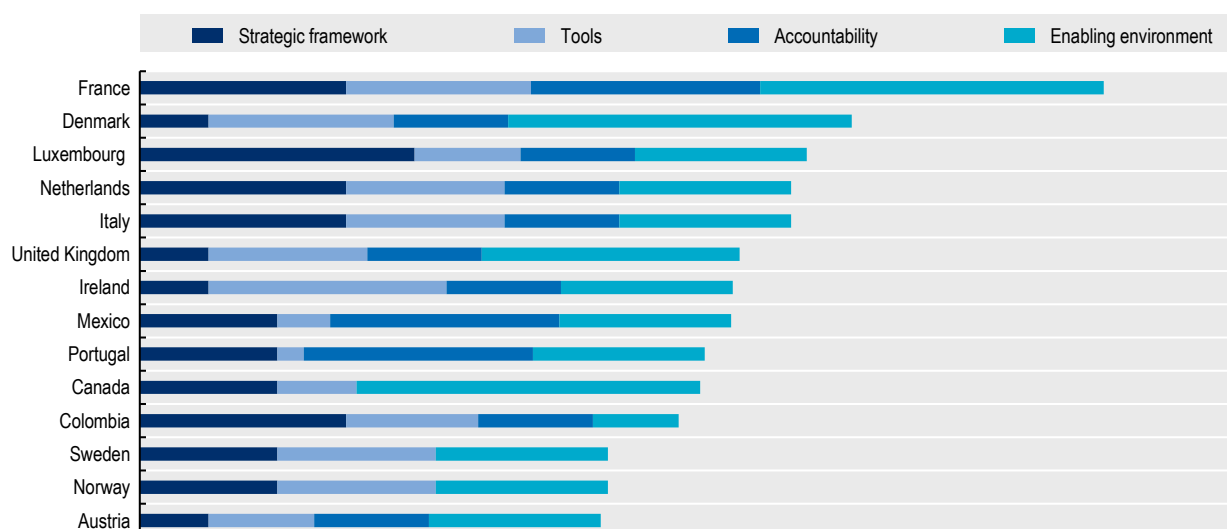
To assist the implementation of climate commitments, countries are incorporating environmental considerations into their budget planning framework in an evolving practice coined 'green budgeting'. Green budgeting helps central government authorities understand and prioritise policy choices to achieve environmental goals. It includes practices like the following:

- **Climate-sensitive economic and fiscal forecasting.** Budget planners are increasingly trying to capture how climate initiatives like carbon pricing affect not only the public coffers, but also how climate change mitigation affects the economy and feeds back to the budget. Further, planners are incorporating the impact of unmitigated climate change on economic and fiscal baselines with greater sophistication, such as by accounting for the economic loss of coastal regions, pricing the increased maintenance costs of public assets from extreme weather, or by estimating the additional spending to support industries and households displaced by climate disasters like wildfires. These have been implemented both in medium-term strategic plans and in long-run fiscal sustainability analysis.
- **Green reporting and disclosure requirements** compel governments to provide the climate and ecological impact of policies under consideration in the budget and other policy documents and to consider climate risks in medium- and long-term projections. Increasingly, international public sector accounting bodies and standard-setting agencies are also updating their guidance to recommend that governments report on the cost of climate mitigation and adaptation initiatives that are needed to transition to environmental sustainability goals (Chartered Institute of Public Finance and Accountancy, 2021^[4]). Further, as more institutional and private investors are required to allocate portions of fixed-income portfolios to green or ESG (Environmental, Social, and Governance) bonds, governments are issuing sovereign ESG bonds to meet demand. These debt issues must disclose sufficient information to assess compliance with ESG regulations such as the EU Green Bond Standard.
- **Environmental policy appraisal and evaluation** incorporates climate and ecological considerations into existing frameworks for choosing individual policies for revenue raising, spending, and regulation. These include both *ex ante* impact assessments and *ex post* programme evaluations. Green considerations include non-market activities related to greenhouse gases and ecological destruction, particularly the depreciation of natural capital such as wildlife habitats, public green space and air quality. Appraisals vary in sophistication from comparing the positive and negative environmental externalities of a new hydroelectric dam to evaluating the wider economic impact of its construction on energy markets, jobs and growth. For example, in Denmark researchers in the Danish Research Institute for Economic Analysis and Modelling, an independent governmental institution, are developing a "GreenREFORM" model to assess the impact of policies to reduce greenhouse gas emissions according to their financial cost and impact on job numbers, GDP growth, incomes and other economic considerations (OECD, 2021^[5]).

- **Green budget tagging** is an exercise to refocus fiscal planning by tagging policies as positive, negative, or neutral according to a list of environmental objectives. For example, during the preparation of France's budget, spending programmes and tax expenditures are tagged according to their environmental impact. The information lets lawmakers in the French Parliament evaluate how measures will support France's climate commitments prior to approval. The tagging methodology was an interdisciplinary effort by the Inspectorate General of Finance and the General Council for Ecology and Sustainable Development (Ministry for the Economy, Finance and the Recovery, France, 2020^[6]). In the EU, to assist Member States to start developing their own tagging methodologies, the European Commission has developed two preliminary lists of budgetary items classified as broadly "green" or "brown".
- **Green tax reviews** are carried out by governments or independent commissions to assess how a country's tax system can be adjusted to capture the price of negative environmental externalities while simultaneously improving economic efficiency (the so-called 'double dividend' of green tax reform). Green tax reviews have been conducted, for example, by the Green Fiscal Commission in the United Kingdom (Ekins et al., 2009^[7]).

The OECD surveyed member countries on the implementation of green budget practices and summarised the results in a composite indicator, visualised in Figure 12. Fourteen out of 35 countries that responded to the survey had implemented it in some form, with five more intending to introduce green budgeting in the future (OECD, 2021^[8]). Countries that scored highly on the indicator have a comprehensive approach to green budgeting across four building blocks:

- **A well-defined and strong strategic framework**, indicated by whether climate and ecological targets are enshrined in the constitution, budget law, subordinate legislation, or administrative practice and whether green budgeting efforts are specifically named in a national strategy.
- **A comprehensive range of tools that are applied within the budget process**, indicated by whether they have embedded specific green budget tools in the public financial management framework, such as environmental impact assessments, green budget tagging, and ecosystem pricing, among others.
- **Reporting processes that show accountability for climate change and provide transparency to budgetary decisions**, indicated by whether countries publish a green budget statement, whether environmental effects are disclosed in tax and expenditure reports, and whether civil society and other stakeholders are consulted on climate and ecological concerns of budget decisions. In the future, this building block of the framework may take into consideration the role of oversight institutions, including independent fiscal institutions.
- **An enabling environment that supports and equips green budgeting practices**, indicated by whether performance and programme budgeting practices with green objectives have been adopted, whether the central budget authority and line departments have created training and skills development programmes on green analysis, and whether an inter-agency group has been formed to co-ordinate green action across government.

Figure 12. OECD countries practicing green budgeting, composite indicator score

Source: (OECD, 2021^[8])

Both governments that are on the road to green budgeting and those that have yet to depart have a long way to travel to codify practices. Although there are several areas that IFIs can support immediately, the full potential of independent monitoring cannot be realised until governments formalise rules. IFIs should prepare for governments to move quickly to do so. Suitable emissions targets have been agreed and there is broad agreement that climate and ecological inaction in the short run will be catastrophic for both the economy and public finances over the long run.

How the role of IFIs can go green

Mitigating climate change will require all public institutions to make a ‘big shift’ toward considering the planet in public policy, particularly in the way that public money is planned to be raised and spent. The factors that have made IFIs effective in supporting fiscal rules could also make them effective in supporting this shift to green budgeting. Further, there are many climate and ecological risks around financial planning to which IFIs would not only be justified in directing their attention, but where anything less than a comprehensive assessment could fall short of due diligence in delivering their mandate.

The OECD, in conversation with budgeting experts and IFIs currently working on green analysis, has identified the four areas in Table 4 where IFIs could support the green transition, either upon request from stakeholders or through their autonomy to provide self-initiated analysis. For each area, specific activities that IFIs are already completing, or which could be naturally extended from core functions in their mandates for economic and fiscal analysis, have been listed and described below.

IFIs vary widely in the breadth and depth of their mandate and in their resources, from small institutions like the Swedish Fiscal Council, with a handful of staff publishing one key report a year, to large institutions like the United States Congressional Budget Office, with around 250 staff publishing a large number of reports across a broad range of policy issues facing the Congress each year. The OECD has therefore also attempted to classify each activity according to two main levels that reflect compatibility with current mandates and intensity of staff expertise and resources needed. There are several other potential areas not covered here, which would overlap with other agencies devoted to climate research or auditing and would require significant changes to mandates, as well as special resources and atypical expertise.¹

Level 1. Analysis that IFIs should be doing as due diligence for comprehensive financial analysis.

This work would not require a new mandate, unless specifically prohibited under the existing mandate. It could be done by generalist analysts and may require some limited synthesising of external environmental research from the physical and social sciences. It would not require co-ordinating with other independent bodies but could benefit from their input where available.

Level 2. Analysis that larger IFIs could consider adopting proactively under their flexibility for self-initiated work or, if given an explicit mandate for green analysis, should consider adopting and should recruit specialised staff to do so. This work would require repurposing external environmental research from the physical and social sciences to the case at hand (for example, applying the results of a meta study of elasticities of greenhouse gas emissions to energy prices for a new carbon pricing programme or rebasing a climate-related scenario analysis to fit the IFI's own forecasts) either by hiring specialists on staff or by using external consultants. Other independent bodies may be doing similar analysis and should be notified of the IFI's work plan as a professional courtesy, consulted during the analysis, or analysis should be undertaken as a joint project.

Table 4. Four areas and associated activities under which IFIs could support green budgeting

	Level	1	2
Monitoring compliance with green budgeting			
Verifying compliance with green reporting and disclosure requirements		•	
Verifying that budget plans are consistent with achieving climate, greenhouse gas and ecological targets <i>ex ante</i>			•
Assessing leakage—the 'export' of carbon-intensive production to other countries to achieve domestic emissions targets			•
Verifying that financial outcomes were consistent with green investment targets <i>ex post</i>		•	
Economic and fiscal forecasting and scenario analysis with climate and ecosystem considerations for budget plans			
Scrutinising and providing opinions on the reasonableness of domestic and global policy and emissions baselines for budget planning		•	
Scrutinising macroeconomic and fiscal planning assumptions and providing opinions on the risks that climate change and ecosystem losses pose to the outlook		•	
Providing alternative macroeconomic forecasts, scenarios and other planning assumptions that incorporate green considerations			•
Providing alternative fiscal forecasts, scenarios and other planning assumptions that incorporate green considerations			•
Providing long-term fiscal sustainability analysis that incorporates climate change and ecosystem considerations			•
Costing and programme evaluation with a green perspective			
Scrutinising the reasonableness and comprehensiveness of the government's cost estimates		•	
Assessing the financial cost of green initiatives			•
Assessing environmental externalities in all cost estimates		•	
Assessing the direct distributional and social consequences of green initiatives			•
Assessing the macroeconomic impact of green initiatives			•
Providing cost-benefit analysis (net benefits and value-for-money) of green initiatives, including their cost-effectiveness			•
Modelling and monitoring carbon pricing programs such as trading schemes and carbon taxation and assessing the impact of green policies on energy markets.			•
General research on climate, ecosystems and the circular green economy			
Drafting briefing notes on topics related to the economic and fiscal implications of climate change and ecosystem loss		•	
Assessing the effect of climate change on the economy			•
Assessing the effect of climate change on the public finances			•
Assessing the effect of economic activity in the private and public sector on climate change			•

Source: Discussions with budget experts and IFI case studies.

Monitoring compliance with green budgeting

One of the motivations for establishing many IFIs, particularly those in the euro area, was to monitor adherence to national fiscal rules and international fiscal co-ordination frameworks. Their experience in scrutinising government plans and communicating their results to parliaments and the public could be readily extended to monitoring green budget frameworks. In addition, given their experience reviewing appropriations bills and policy background documents, IFIs could be natural monitoring bodies for assessing a government's compliance with green reporting and disclosure requirements and many could do so under current mandates and without the need for additional expertise.

For example, IFIs have served as the official arbiters of minimum reporting requirements in legislative documents. This is the case for Finland's minimum contents laws for government budgets which prescribe a list of information that budgets must contain, such as the number of years of the forecast horizon and the categories of fiscal aggregates. The IFI Team in the National Audit Office of Finland is responsible for monitoring the budget's compliance with the law and has, on several occasions, brought shortcomings to the attention of the public (Cameron et al., 2021^[9]).

IFIs could be given the similar task of **verifying compliance with environmental disclosures and carbon transparency requirements** in countries that are legislating similar reporting standards that require governments to disclose the climate and ecological impact of new policies and to incorporate environmental externalities into cost assessments. For example, the government of Austria is required to evaluate new programmes against performance objectives related to reducing greenhouse gas emissions and increasing renewable energy. The Austrian Parliamentary Budget Office has a special mandate to monitor performance budgeting, which includes reporting on the adequacy of the government's environmental information to Parliament. All countries that signed the Paris Agreement will similarly be required to adhere to an enhanced transparency framework beginning in 2024, which requires standardised reporting on actions and progress toward climate change mitigation and adaptation.

Most countries in the OECD require governments to publish budgets that are consistent with achieving legislated medium-term fiscal rules and objectives such as balanced budgets. Twenty-four of 35 (69%) national IFIs in the OECD PBO Working Party are responsible for monitoring the compliance of these budget plans with rules looking ahead. Governments are increasingly being required to table budgets that are also consistent with achieving medium-term emissions reduction objectives. As they have for fiscal rules, IFIs could be given the role of **verifying that budget plans are consistent with achieving climate, greenhouse gas and ecological targets ex ante**. Their regular assessment reports could be extended to include scrutiny of the compliance of budget plans with green targets. For example, the Danish Economic Councils publish an annual report that assesses whether the government is making the necessary investment to continue on its path to comply with the 2020 Climate Act to reduce net emission of greenhouse gases by 70% compared to 1990 (Danish Economic Councils, 2021^[10]). In the report, the Councils review the path of Denmark's greenhouse gas emissions under a 'frozen policy scenario' that accounts for the suite of regulations, taxes, subsidy schemes and technical requirements adopted to the point of the report. They then assess the gap between the path under current policy with Denmark's domestic and EU targets.

Such analysis goes beyond the core financial scrutiny remit of most IFIs; however, the Danish Economic Councils have an explicit mandate for environmental analysis (indeed, the Councils consist of an Economics Council and an Environmental Economics Council—see Box 11). The Councils also work in co-operation with other independent bodies such as the Danish Climate Council and government departments such as the Danish Energy Agency, using external greenhouse gas projections and calculations of elasticities (relationships between climate variables and economic and fiscal variables) for their analysis, albeit with some updating and adjustments of their own. Other IFIs should have clear mandate instructions before embarking on similar analysis, and should similarly rely on empirical research

from outside academics and the physical scientists in other agencies and departments rather than duplicating greenhouse gas projections in-house.

Countries can achieve their climate targets without reducing emissions on a global scale by shifting emissions abroad. While this may uphold the letter of green constraints, it may not uphold the spirit. IFIs can be given the role of **assessing “leakage”—the export of carbon-intensive production to other countries, without a corresponding decrease in carbon-intensive consumption, to achieve emissions targets**. Leakage is principally an economic question that a country’s IFI may be the only institution placed to answer. IFIs can combine their macroeconomic projections and scenarios of imports and exports of goods and services with research from climate councils, environmental and energy departments and international organisations to calculate the outsourced carbon imprint through trade (importing carbon-intensive goods), price effects (decreasing demand for fossil fuels domestically, which lowers prices and is offset by higher consumption elsewhere), or quota exchange (transferring its emissions quota to other countries in its place). The Danish Economic Councils have developed pioneering models to provide an assessment of leakage and make recommendations on how to cost-effectively reduce it. They have a specific mandate to provide the analysis, have been provided resources to hire the experts to implement it (primarily economists with an environmental specialisation), and make extensive use of research from physical scientists in other climate councils, government departments, and organisations.

Box 11. Case study: Green analysis at the Danish Economic Councils

The Danish Economic Councils are an independent economic advisory body consisting of two councils—the Economic Council, established in 1962, and the Environmental Economic Council added in 2007, each representing diverse stakeholders from unions, employers, NGOs and the public sector. The Councils are overseen by a chairmanship of university professors in economics and supported by a single secretariat consisting mostly of economists. The primary objective of the institution is to provide independent analysis and policy advice to Danish policy makers

A green perspective is incorporated into the analysis of all three of the Councils’ mandated annual reports: *Danish Economy* (published since 1962), *Economy and Environment* (published since 2007) and *Productivity* (published since 2017). *Economy and Environment* is the flagship output of the Environmental Economic Council and focuses on how to achieve Denmark’s climate goals and other environmental objectives at the least economic cost. It looks at a broad range of indicators on output, firm competitiveness, sectoral employment, and the distribution of the burden across economic agents. The Councils have also prioritised comprehensive analysis of global emissions, building innovative models to assess carbon leakage. Its analysis covers most of the roles identified by the OECD:

- Monitoring compliance with green budgeting initiatives
- Economic and fiscal forecasting and scenario analysis with climate and ecosystem considerations for budget plans
- Costing and programme evaluation with a green perspective
- General research on climate, ecosystems and the circular green economy

Formal monitoring of emissions targets is carried out by Denmark’s Council on Climate Change that was created in 2014 to fill this role; however, there is some overlap in practice with the work of the Danish Economic Councils in providing analysis and advice on how to reach emissions targets. The Danish Economic Councils communicate with the Council on Climate Change but the two generally carry out their work independently from one another.

The Danish Economic Councils have a secretariat with 25 analysts, which work on all subject streams, rather than specialising in green analysis; however, several of the analysts have a background speciality in environmental economics. The Councils do much of their analysis using in-house models or by applying research by outside academics. They are currently expanding their tools on environmental analysis, and exploring joint model development activities with the University of Copenhagen and independent modelling consultants.

A common issue as countries recovered from the global financial crisis was that large infrastructure investment stimulus measures were optimistically announced by governments but slow to implement in practice (Parliamentary Budget Officer of Canada, 2010^[11]). Many of the programmes announced for the recovery from the COVID-19 pandemic are similarly tied to climate and ecological requirements to ‘build back better’. IFIs are well-placed after their work in monitoring recovery programmes following the global financial crisis to do the same for green new deals following the pandemic, **verifying that financial investment outcomes were consistent with green investment targets *ex post***. This work would fall under existing mandates to monitor spending and use existing expertise working with budget plans and implementation data, and IFIs could repurpose many of the tools such as website dashboards and monthly monitoring notes that they have already developed.

Box 12. Case study: Green analysis at the Federal Planning Bureau of Belgium

The Federal Planning Bureau of Belgium is an independent public agency that supplies the economic forecasts for the federal budget and serves as a general think tank for economic, social and environmental policy issues. Across all its research streams, the Bureau's mission focuses on the sustainable development vision adopted by the federal government.

The Bureau has been assigned a broad and deep mandate for environmental analysis, with roles in forecasting energy consumption and production, greenhouse gas emissions and transport demand to support the government's decision-making.

Their tasks include:

- Monitoring compliance with green budgeting
- Economic and fiscal forecasting and scenario analysis with climate and ecosystem considerations for budget plans
- Costing and programme evaluation with a green perspective
- General research on climate, ecosystems and the circular green economy, including analyses of the impact of European energy and climate policy on the Belgian energy system and economy.

To carry out its green analysis, the Bureau has developed (and is currently developing) or outsourced a suite of climate and energy models to complement its traditional macroeconomic and DSGE models. For example:

- PLANET, model developed in-house to make long-term projections of the demand for passenger and freight transport in Belgium and to carry out related policy analyses.
- Crystal Super Grid, developed by Artelys and used by the FPB for electricity sector analyses. This is a unit commitment optimal dispatch model for the electricity sector that can be used for one or up to thirty-three European countries.
- PRIMES, developed and maintained by a team at the University of Athens (NTUA) to provide long-term energy and emissions projections to 2030 at the domestic and European level.

- The Bureau is also building a new multi-sector recursive dynamic CGE model focused on climate and energy policy for Belgium and its regions. Linkages with microsimulation models are being explored, with a view to analysing the distributional effects of green tax reforms on households.

Several of the Bureau's analysts are specialists in climate and energy modelling, and devoted full-time to environmental analysis; however, all analysts contribute and benefit from the environmental work streams.

Forecasting and scenario analysis with climate and ecosystem considerations

IFIs promote the use of impartial budget assumptions in budget plans by scrutinising the governments' economic and fiscal forecasts and providing an opinion or formal endorsement of their reasonableness. For example, the Swedish Fiscal Policy Council publishes an annual report that fulfils its legislated duty to "assess whether fiscal policy is in line with economic developments, long-term sustainable growth and long-term sustainable employment."

To prepare the reports, nearly half (41%) of IFIs have developed in-house models to produce their own independent forecasts to serve as benchmarks against which to compare official forecasts. In three countries, (Belgium, the Netherlands, and the United Kingdom), the IFI provides the official macroeconomic forecast used for the budget directly. IFIs can use their role in forecast scrutiny or production to encourage governments to account for climate change risk, mitigation and adaption in their economic and fiscal assumptions for the coming years.

For example, a major issue reported by IFIs is the lack of an agreed-upon policy baseline for domestic and international emissions and climate action. Independent institutions would be natural arbiters of these baselines for budget purposes, **scrutinising and providing opinions on the reasonableness of domestic and global policy and emissions baselines for budget planning**. Their relationship with peers abroad would position them to be a hub for co-ordinating baselines through international networks such as the OECD PBO Working Party. IFIs may benefit from working closely with climate councils, but their expertise in practical budget preparation and the interactions between economic and fiscal assumptions makes them the natural body to lead on providing opinions on the appropriate baseline in their current reporting.

Six IFIs produce a report dedicated to comprehensively assessing fiscal risks. Two of these (the Fiscal Advisory Council of Austria and the United Kingdom Office for Budget Responsibility) have been given a legislated requirement to do so and are already **assessing the risks that climate change and ecosystem losses pose to the budget outlook**. Due diligence in preparing any comprehensive fiscal risk assessment should include a discussion and quantitative assessment of the government's exposure to unmitigated climate change or other uncertainty in the rollout of programmes to fight climate change. Latvia's Fiscal Discipline Council does not produce a standalone report on risks, but is formally required to provide an opinion on the adequacy of the government's assessment of risk and the Fiscal Stability Reserve set aside in the event those risks are realised. The Council has in the past commented on the reasonableness of the government's official assessments of climate change risk, calling for more analysis on the risks inherent in achieving the government's green objectives (Fiscal Discipline Council of Latvia, 2021^[12]). The Council is building capacity to do its own in-house environmental risk assessments for future reports.

Thirteen of 35 (37%) national IFIs in the OECD PBO Working Party publish their own macroeconomic forecasts. Through their current mandates or with supplementary mandates these IFIs could **provide alternative macroeconomic forecasts, scenarios and other planning assumptions that incorporate green considerations**. These would provide stakeholders and lawmakers with new benchmarks for climate and ecological considerations or could serve as a useful second opinion against official benchmarks. For example, the Canadian Parliamentary Budget Officer projected real GDP under a number

of carbon pricing policy scenarios to determine the economic impact of achieving the targets of the Paris Agreement, finding a negative effect on output of between 0.5% and 0.6% in 2030, depending on whether it was a broad-based carbon levy or different structures of an output-based pricing system (Parliamentary Budget Officer of Canada, 2020^[13]).

Similarly, twelve of 35 (34%) national IFIs in the OECD PBO Working Party produce their own fiscal forecasts. Through their current mandates to scrutinise or provide alternative projections, these IFIs can **provide alternative fiscal forecasts, scenarios and other planning assumptions that incorporate green considerations** to serve as a second opinion to stakeholders and lawmakers. For example, the CPB Netherlands Bureau for Economic Policy Analysis (CPB for Centraal PlanBureau in Dutch) has projected the financial implications of a number of emissions target stringency assumptions to 2030 to illustrate the risks to fiscal sustainability of climate change mitigation, concluding that they are relatively small (CPB Netherlands Bureau for Economic Policy Analysis, 2019^[14]). The CPB's broader green work plan is described in the case study in Box 13.

Box 13. Case study: Green analysis at the CPB Netherlands Bureau for Economic Analysis

The CPB Netherlands Bureau for Economic Policy Analysis supports the Netherlands' green agenda by fulfilling requests from the Minister of Economic Affairs and Climate Policy, the chairman of the Climate Council, Cabinet, and for political parties during elections and coalition formation. The CPB has a long history of providing broad research on the socio-economic implications of public policy beyond the immediate financial costs of legislation, including on the environment.

Under the classification in Table 4, the CPB primarily provides services related to assessing the financial cost of green initiatives, assessing the economic impact of green initiatives, assessing the distributional consequences of green initiatives, and providing long-term sustainability analysis that incorporates climate change.

To do so, they receive separate funding for environmental analysis as part of their annual budget along with supplementary funding incentives from the Ministry of Climate and Environment. Of the CPB's 122 analysts, seven are devoted full time to climate analysis and green policy research. The CPB recruits staff that specialise in environmental analysis from the social sciences, including environmental economists and energy economists. It does not maintain subject-matter specialists from fields such as engineering or atmospheric science on permanent staff, but rather consults such outside experts on an ad hoc basis.

The CPB co-operates closely on climate related analysis with the PBL Netherlands Environmental Assessment Agency (PBL for PlanBureau voor de Leefomgeving in Dutch). PBL is the national institute for strategic policy analysis related to climate, the environment and its interaction with human activity. For example, the CPB takes the cost of many climate-related policies and their effect on CO₂ emissions from the research of the PBL and translates it into the effect on the economy and social indicators. The CPB in turn contributes to the PBL's annual *Climate and Energy Outlook* report stipulated in the Dutch Climate Act. The CPB also collaborates with the International Energy Agency and engages private consultancy firms on an ad hoc basis.

The CPB's senior leadership participate in committee hearings to discuss its research, playing an influential role in policy decisions. Its election manifesto costing service is particularly important in shaping policy, as its research directly influences the choice of policies in the Coalition Agreement at the centre of government formation following elections. Recent Coalition Agreements have prominently featured climate related policy measures that were costed by the CPB.

The CPB plans to expand its in-house environmental modelling, particularly to assess how green reforms transmit to the purchasing power of households. It also plans to build a CGE model together with the PBL to better assess the economic consequences of climate change, green reform and the circular green economy.

Measuring the sustainability of public finances requires taking a long-term perspective and working out the immediate and future action that is consistent with achieving it. This is the same perspective that international agreements have implemented for climate change mitigation and adaption and IFIs can use the same lens to **provide long-term fiscal sustainability analysis that incorporates climate change and ecosystem considerations**. In practice, the long-term fiscal sustainability assessments provided by IFIs project the public finances forward anywhere from 10 years to 50 or more. While not a forecast in the sense of a prediction, the thought exercise is to project existing policy forward to capture trends from demographics and the consequences of leaving current policy unchanged, to gauge the extent of future adjustments that will be necessary to maintain sustainability and to see if short-run adjustments would be preferable. This analysis lends itself particularly well to including different scenarios for climate change and adjustment paths to net-zero. For example, the UK Office for Budget Responsibility included assessments of the impact of climate change and policies to mitigate it on long-term fiscal sustainability in its 2021 Fiscal Risks Report. The report uses the framework of scenario analysis developed by the Central Banks Network for Greening the Financial System that decomposes risks into ‘physical risks’ from global warming itself and ‘transition risks’ inherent in implementing policies and technologies to move to a low-carbon economy (Office for Budget Responsibility, 2021^[15]). The Office for Budget Responsibility’s green analysis is described in the case study in Box 14.

Box 14. Case study: Green analysis at the United Kingdom Office for Budget Responsibility

The Office for Budget Responsibility (OBR) was established in 2010 to provide independent and authoritative analysis of the United Kingdom’s public finances, including independent economic and fiscal forecasts.

The OBR has approached green budget analysis primarily by augmenting its existing mandated reports with climate scenarios to provide policymakers with an idea of the sensitivity of the results of their research to different paths for climate change mitigation and residual climate risks. It collates the green analysis from its mandated reports into a special section of its website devoted to climate change. Under the classification in Table 4, the OBR primarily provides services related to assessments of the risks that climate change losses pose to the budget outlook and providing long-term fiscal sustainability analysis that incorporates climate change considerations. It has so far focused on incorporating this analysis into its fiscal risks reports; however, as issues such as the impact of electric vehicles on tax from fuel duties become increasingly important to the near-term fiscal outlook, climate change is featuring more prominently in its flagship Economic and Fiscal Outlook that accompanies the government’s budget.

The OBR has hired one analyst for green analysis, but otherwise repurposes generalists on an ad hoc basis for climate analysis. The OBR does not receive separate funding for its climate analysis and does not, at present, manage the resources as a distinct subdivision of its work programme.

The OBR has accelerated its climate change research by co-operating closely with the Bank of England and the Central Banks Network for Greening the Financial System on the appropriate design of climate-related scenarios. It has also drawn heavily on emissions mitigation scenarios prepared by the UK Climate Change Committee in support of its advice on the United Kingdom’s adoption of a net-zero policy target for 2050. The OBR’s climate-related fiscal scenarios in effect calculated the implications for the public finances of bringing together these two sets of economic and emissions scenarios, which it concluded were “significant but not exceptional”. It also presented a stylised unmitigated global warming scenario, which it concluded would “ultimately have catastrophic economic and fiscal consequences.”

Costing and programme evaluation with a green perspective

All IFIs that comment on the government's fiscal planning assumptions have a duty to **scrutinise the reasonableness and comprehensiveness of the government's cost estimates** that underpin plans. This would apply equally to the government's planning assumptions of the financial costs of green policy initiatives and the extent to which environmental externalities have been priced into all cost estimates. For example, the Parliamentary Budget Office of Austria released a report assessing a suite of reforms for greening the tax and benefit system ("eco-social" reforms). In it they assess the reasonableness of the government's estimate of the financial and administrative costs of a CO₂ tax and regional climate bonus benefit payment. They also include a discussion of the legislative transparency of the initiatives in disclosing environmental considerations and provide supplementary analysis on the distributional and economic impact of the measures using both in-house modelling capacity and external research from the physical sciences, such as researchers with the Federal Environment Agency (Parliamentary Budget Office of Austria, 2022^[16]).

10 out of 35 (29%) national IFIs in the OECD PBO Working Party have a mandate to go beyond simply scrutinising official cost estimates and produce cost estimates of their own. A further ten IFIs do so proactively under their flexibility for self-initiated analysis for a total of 20 out of 35, or 57%. The majority of IFIs will therefore have a role in **estimating the financial costs of green policy proposals** under existing practices and in incorporating green considerations (such as pricing externalities) into all policy costings. For example, Canada's Parliamentary Budget Officer fulfilled a request from a senator to cost tax provisions for fossil fuel development, including incentives for liquid natural gas capital investment and an exemption from the carbon levy for the agriculture sector (Parliamentary Budget Officer of Canada, 2021^[17]).

A cornerstone of green budgeting is bringing unpriced environmental externalities into policy costings in all stages of policy development and evaluation. This includes putting a shadow price on carbon emissions, valuing biodiversity, and taking a global perspective of supply chains, among others. Each of the majority of IFIs that publish cost estimates will need to make an effort to **estimate environmental externalities in all cost estimates**. This will primarily involve applying the research of external academics and organisations and should be largely compatible with the skillset of generalist economists already on staff.

Many IFIs have tools that they use to estimate how tax and benefit policies will affect different income brackets and the liabilities and disposable incomes of households and individuals, along with other key measures of well-being. These tools can be repurposed to **assess the direct distributional and social consequences of green initiatives**. For example, the Parliamentary Budget Officer of Austria published an analysis of the impact of the government's CO₂ pricing reforms and relief measures across a broad spectrum of earners such as the employed, self-employed, farmers and pensioners, different household types (with and without children) and by individual and household income quintiles (Box 15). They did so using their own calculations with the EUROMOD microsimulation model and EU-SILC data, combined with special surveys and data from co-operating with Statistics Austria (Parliamentary Budget Office of Austria, 2022^[16]).

Of the 20 IFIs in the OECD PBO Working Party that publish policy cost estimates, five calculate the impact of the measures on macroeconomic indicators such as growth, employment, household incomes and consumption. All five IFIs with the macroeconomic tools to assess these implications, along with several more that have macroeconomic models but don't publish financial cost estimates, are already **assessing the macroeconomic impact of green initiatives**. Some, such as the Danish Economic Councils are doing thorough comparisons of different options for regulation and carbon pricing and determining which option would have the lowest economic cost, examining factors such as industry competitiveness and the impact on relative input and output prices, among other considerations (Danish Economic Councils, 2021^[10]). Most of these IFIs are investing resources to improve upon their capacity to do macroeconomic analysis of green policies by linking their models to new in-house modules or internationally developed models on climate change, emissions trading schemes and the energy sector.

Although traditionally produced internally by government departments before money is spent and audit agencies after money is spent, some IFIs have begun **providing cost-benefit analysis (net benefits and value-for-money) of climate action and green projects**. To capture the benefits side of the equation requires close co-operation between economists and physical scientists, for example in assigning a price to positive externalities such as cleaner air and more biodiversity. The Danish Economic Councils have used the work of outside researchers and co-operated with other organisations like the Danish Energy Agency to quantify benefits such as healthier households from lower air pollution, greater biodiversity from nitrogen reduction in coastal waters, and positive spill-overs of climate-friendly technologies to other countries (Danish Economic Councils, 2021^[10]). By providing cost-benefit analysis for a range of policy options, IFIs like the Danish Economic Councils have been able to rank their cost-effectiveness to provide recommendations for achieving climate goals as quickly as possible with the fewest trade-offs.

Finally, beyond the scope of most IFIs, some larger research institutions that serve an IFI function have research programmes devoted **to assessing the impact of government policies on energy markets**. For example, the Belgium Federal Planning Bureau provides detailed projections of the Belgium energy system over the medium-term (5-10 years) and long-term (20-30 years) as a task prescribed in Belgium's electricity and gas laws. The analysis includes assessing the impact on energy prices of specific policies and general trends in renewable energy capacity, CO₂ emissions and costs borne by different economic agents, the availability of offshore wind in the electricity supply mix, and the de-carbonisation of the Belgium economy (Federal Planning Bureau, 2021^[18]). These work programmes also include modelling carbon trading schemes like the EU Emissions Trading System, which require special tools that go beyond a typical policy costing, looking at economy-wide input-output systems, relative prices, and cross-country trading.

Box 15. Case study: Green analysis at the Parliamentary Budget Office of Austria

The Parliamentary Budget Office (PBO) of Austria was established by a political agreement in 2012 to provide the Budget Committee of the National Council (the lower house of the Austrian Parliament) with impartial expertise in scrutinising budget documents, assess the impact of new legislation and give advice on performance and gender budgeting.

Under a recent initiative of the National Council, the PBO's advisory activities were expanded to cover the government's performance toward carbon goals. Climate change mitigation was formalised in Austria's budget framework as performance objectives to reduce greenhouse gases and implement a sustainable energy system by increasing the use of renewable energies.

The PBO's six analysts scrutinise official assessments of the environmental impact of new government bills or estimate the impact themselves, reporting their findings to Parliament. The analysts are mainly generalist economists and contribute to all areas of the office's research; the office does not manage its green research programme separately. To perform its analysis the PBO uses a range of in-house models or models from international organisations such as the EUROMOD micro-simulation model maintained by the Joint Research Centre of the European Commission, applies the research of external researchers to novel scenarios, or collaborates with other government agencies and independent bodies.

The office primarily undertakes research upon request of members of the Budget Committee, covering the following tasks:

- Monitoring compliance with green budgeting initiatives, particularly the compliance of legislation with green reporting and disclosure requirements. This primarily takes the form of summary information on green goals, activities and targets from across different budget chapters.

- Costing and programme evaluation with a green perspective, scrutinising the reasonableness and comprehensiveness of the government's cost estimates and also providing the full spectrum of in-house estimation or application of external research to determine the financial cost of green initiatives, the direct distributional social consequences of green initiatives, the macroeconomic impact of green initiatives, and assessing environmental externalities in cost estimates. The office also monitors carbon pricing programs such as trading schemes and carbon taxation.
- General research on climate, ecosystems and the circular green economy, including drafting briefing notes on the circular relationship between climate, the economy and the public finances.

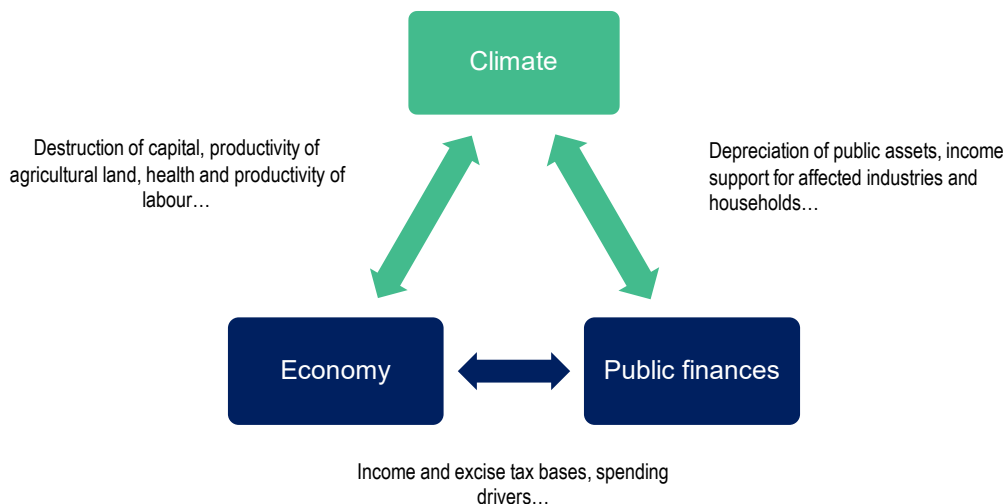
For example, the office's publication on the government's 2022 eco-social tax reforms provided detailed assessments of the transparency of legislative material, identifying several areas where the government did not provide sufficient detail to allow parliament to apply performance objectives (Parliamentary Budget Office of Austria, 2022^[16]). In an attempt to address the gaps, the office supplied a wide range of its own analysis of the impact of the reforms on individual and household incomes and tax liabilities by social characteristics such as income quintile and number of children. The assessment also commented on macroeconomic effects and emissions savings using outside analysis by independent research institutes like the Austrian Institute of Economic Research (WIFO) and EcoAustria and the Federal Environmental Agency.

General research on climate, ecosystems and the circular green economy outside of its implications for budget planning

Half of IFIs in the OECD PBO Working Party take requests from legislative committees and individual legislatures. This could include **drafting briefing notes on topics related to climate change and ecosystem loss**. Further, all IFIs in the OECD PBO Working Party have the discretion to publish self-initiated analysis that they feel would benefit stakeholders. Many have received requests related to general green topics or have used their research autonomy to publish literature reviews or summaries of external analysis on topics related to climate change and other environmental issues. For example, the United Kingdom Office for Budget Responsibility often compiles standalone notes on special topics of interest to stakeholders or compiles thematic “box sets” of research published in boxes in its past reports. It has a box set bringing together all its climate change boxes on its website, including an overview of the government's Net Zero Strategy and accompanying Net Zero Review (Office for Budget Responsibility, 2021^[19]) and a summary of a report by the United States Office of Management and Budget and President Obama's Council of Economic Advisers on the fiscal risks associated with climate change (Office for Budget Responsibility, 2019^[20]).

In addition to general briefing notes on green topics, IFIs also publish novel empirical research on the circular green economy—that is, the interaction between climate, the economy and the public finances (Figure 13). This research is distinct from forecasting and scenario analysis for budget planning, in that it does not project what could be, but rather investigates the causal channels through which human activity depends on the environment and vice versa, holding all else the same. The research complements the traditional empirical research of IFI's on the interactions between the economy and public finances.

Figure 13. Assessing the circular relationship between climate, the economy and the public finances



For example, IFIs pursuing green budget analysis may research **the effect of climate change on the economy**, such as the impact of extreme heat on crop yields and the impact of pollution on health and labour productivity. The Congressional Budget Office of the United States has been active in this area (Box 16). In a 2020 report, the office assessed the expected long-term harm to GDP of unmitigated climate change via changes in weather patterns and hurricane destruction, finding cumulative effects of a 1% reduction in the projected level of real GDP in 2050 compared to the climate that prevailed at the end of the 20th century (Congressional Budget Office, 2020^[21]).

IFIs also research the **effect of climate change directly on the public finances**, such as the increase in the costs of maintaining public infrastructure from extreme weather or the increase in social transfers from bailing out industries and households affected by catastrophic events like floods and forest fires. The Financial Accountability Office of Ontario published a report assessing the financial impact of extreme rainfall, extreme heat and freeze-thaw cycles on the USD 254 billion of public assets in Ontario, including buildings and facilities such as hospitals, schools, transit facilities, social housing, and wastewater facilities (Financial Accountability Office of Ontario, 2021^[22]).

Closing the loop on the empirical research that IFIs conduct on the circular green economy, some large IFIs with specific mandates for climate analysis publish empirical research on **the effect of economic activity in the private and public sector on climate change**. This often involves surveying academic literature or working closely with environmental commissions and agencies to aggregate, average and synthesise the elasticities of atmospheric carbon and temperature to the carbon footprint of their country's production and consumption. For example, the Federal Planning Bureau of Belgium assessed the air pollution associated with household consumption by socioeconomic household characteristic, finding that total greenhouse gas emissions increase with household income but pollution intensity (grams of pollution per euro spent) decreases with income (Federal Planning Bureau, 2019^[23]). They also broke out the differences in pollution by age, level of education, unemployment, and housing size and type. This research also assesses the impact of economic activity in the public sector from an aggregate national accounts perspective to assess the feedback between public finances and climate (distinguishing it from the programme-level research on the effectiveness of individual measures in mitigating climate change and ecosystem destruction in costing and policy evaluation).

Box 16. Case study: Green analysis at the Congressional Budget Office of the United States

The Congressional Budget Office (CBO) was established in 1974 to provide objective, insightful, clearly presented, and timely budgetary and economic information to help the budget committees of the Senate and House of Representatives, other Congressional committees, and the leadership of the House and Senate make effective budget and economic policy.

The CBO primarily fulfils environmental analysis at the request of committees related to the channels through which climate change and environmental issues affect the economy and federal budget, in line with the CBO's mandate. Under the classification in Table 4, the CBO primarily provides services related to costing with a green perspective, focused on providing information on policy options that includes the financial cost and macroeconomic impact of green initiatives. It also provides general research on the circular green economy.

Examples of the CBO's climate and environmental analysis include:

- Budgetary Effects of Climate Change and of Potential Legislative Responses to It (April 27, 2021), <https://www.cbo.gov/publication/57019>.
- Researching the effect of climate change on the economy. CBO's Projection of the Effect of Climate Change on U.S. Economic Output: Working Paper 2020-06. (September 21, 2020) <https://www.cbo.gov/publication/56505>.
- Expected Costs of Damage from Hurricane Winds and Storm-Related Flooding (April 10, 2019). <https://www.cbo.gov/publication/55019>.
- How Carbon Dioxide Emissions Would Respond to a Tax or Allowance Price: An Update: Working Paper 2021-16 (December 14, 2021). <https://www.cbo.gov/publication/57580>.

CBO is currently enhancing its capability to analyse the effects of proposed climate change legislation on the economy and the federal budget. In 2021, the agency reorganised its functions and hired new staff to give greater emphasis to climate change. In 2022 and 2023, CBO plans to hire additional staff who will increase the agency's expertise and modelling capability in the areas of climate change and energy policy.

CBO's unit devoted to energy, climate, and the environment currently has seven analysts, who also contribute to the agency's other analytical priorities and are supported by other teams in turn. Most of the unit's staff members are economists with doctoral degrees in fields related to energy, the environment, public economics, and industrial organisation. The agency regularly engages outside experts in academia, think tanks, and private industry to inform its analyses.

CBO's Director meets regularly with Members of Congress to explain the agency's work on environmental issues, respond to questions and obtain feedback. Furthermore, CBO's analysts regularly discuss work priorities and explain their analyses to Congressional staff—informally through meetings and phone calls, and more formally in presentations and briefings.

Observations and key questions

Green budgeting practices are in their infancy in most OECD countries and few IFIs have been formally mandated with the duty of monitoring them. Those IFIs that do have a formal role to provide climate analysis tend to be older institutions with long-established mandates for assessing environmental and energy policy. Other IFIs can learn from their head start on green analysis, but may not ultimately be mandated with as prominent a focus on climate and energy beyond the immediate fiscal consequences.

Some IFIs have taken the initiative to start green budget analysis on their own; however, these too remain in the minority. Initial research has focused on literature reviews, scoping papers and rough scenario analysis to provide an idea of the sensitivity of the public finances to general climate change action or inaction. Many IFIs have indicated that they are starting to develop a plan for green analysis for future publications, or intend to do so in the near future.

Few IFIs have dedicated staff or resources specifically for green analysis, which governments have so far institutionalised primarily through the creation of climate councils. No IFIs maintain physical scientists such as atmospheric scientists or engineers on staff on a permanent basis. Instead, some IFIs consult experts from the physical sciences on an ad hoc basis through other government departments or agencies, independent climate bodies, or private consultancies. This is true even among IFIs with large green programmes.

With these observations in mind, several key organisational and technical questions remain open for discussion as governments and IFIs move forward with green analysis.² For example, IFIs will need to consider how the expertise of their current staff can be directed to develop green analysis in-house and how much they should rely on external analysis. Some green analysis such as pricing externalities in cost estimates can be done with the tool kit of most generalist economists. Other analysis such as mapping the prices of a new carbon tax to potential emissions reductions may require niche skills.

Box 17. The growing role of climate councils

A majority of OECD countries have set up climate advisory bodies to advise government on climate matters and track progress on greenhouse gas emissions reductions. Their scope, mandate and degree of independence varies.

For example, in France, the High Climate Council (HCC) is responsible for evaluating the government's climate strategy, issuing independent and objective opinions and recommendations on France's climate action and providing an independent and neutral view of government policy and its socio-economic and environmental impacts. The UK Climate Change Committee is mandated to provide advice on setting specific limits on economy-wide emissions as part of the United Kingdom's system of carbon budgets set every five years.

In 2021, at COP 26 in Glasgow, 21 climate advisory bodies from around the world agreed to launch the International Climate Council Network. The network's mission is to foster international collaboration between existing climate councils and to support the establishment of new climate councils.

In its inaugural letter, the network endorsed a set of key principles for effective climate councils on topics of legal mandates, transparency, appointments of experts, and the use of science-based evidence (International Climate Councils Network, 2021^[24]). Importantly, the principles prescribe that climate councils should reach out to other advisories and peers to exchange expertise and jointly confront challenges.

IFIs will also need to consider what new information they will need for green analysis. This could lead IFIs to forge new data sharing arrangements and improve upon current access to information practices. They may need to work with national statistics agencies to develop new surveys and indicators. IFIs may also need to interact with different government departments or agencies than they have previously, or with other independent bodies like climate councils. Where IFIs and climate councils are already working together, they have found mutually beneficial ways to contribute to each other's analysis. For example, the CPB Netherlands Bureau for Economic Policy Analysis works closely with the PBL Netherlands Environmental Assessment Agency. In 2019, the CPB and the PBL co-operated to evaluate the economic, fiscal and environmental implications of the draft climate agreement.

Where co-operation with public bodies is not possible, IFIs may choose to use private sector consultants to fill analytical gaps in a targeted way. For example, the Financial Accountability Office in Ontario worked with a construction engineering firm to assess the impact of climate change and extreme weather on public assets and for help with data on climate cost elasticities for modelling the relationships between climate hazards and infrastructure costs. Latvia has contracted a consultant to incorporate green deal expenditure into its fiscal sustainability report. The Congressional Budget Office of the United States collaborated with an outside insurance risk modelling group to look at the impact of climate change and coastal development on the costs of hurricane damage that could increase federal spending.

One of the main technical challenges facing IFIs is the choice of a baseline path of climate policy action and emissions in their forecasts and scenarios. In addition to the uncertainty inherent in choosing assumptions, IFIs must decide whether to agree on common baselines across government departments and agencies and other independent bodies or central banks, or whether IFIs should provide a second opinion on the baseline. Regardless, IFIs should be able to question the assumptions used in both government and other independent bodies as part of due diligence in scrutinising official plans.

IFIs will also need to build new methods for green analysis, refine existing ones, or use the methods of others. Many popular climate and energy models are maintained by private think tanks, research institutions and international organisations. Although IFIs can make use of externally maintained models, they need to be careful to strike the right balance between the transparency that comes with in-house modelling and the potentially lower intensity of resources when outsourcing. IFIs will also need to choose whether to do their own controlled (econometrically or otherwise) studies to determine the relationship between climate and ecology outcomes and economic and fiscal choices, or to rely on the external research of others.

The path ahead

IFIs have established a reputation for publishing impartial analysis that is invaluable to the public debate on the economy and public finances. Green analysis is a new field and IFIs naturally have concerns about mission creep and overextending staff resources to the detriment of their core mandate. Given the diversity of IFI responsibilities and analytical capacity, some will be better equipped than others to take on green analysis in the short to medium term. In the longer term, all IFIs will almost certainly engage in green analysis given its increasingly central importance to fiscal prospects—in public investment choices, in the erosion of fossil-fuel tax bases and in the consequences of unmitigated climate change on the economy. Those that have yet to tackle the topic can learn from more experienced IFIs, and can contribute to developing guidance and good practices within the IFI community.

IFIs will need to define an appropriate scope for their green analysis grounded in current (or renewed) mandates. At the same time, as green analysis becomes more integrated into budgeting and the planning provisions of governments, IFIs will need to respond. By applying the same impartiality and quality of research as for fiscal policy, IFIs can support governments as independent monitors of strong budget frameworks to overcome the headwinds facing climate action.

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Notes

¹ These classifications are a first step to begin discussions among the OECD PBO Working Party’s IFIs and Climate Working Group.

² The OECD PBO Working Party has created an IFI and Climate Working Group to discuss these issues and provide guidance on good practices.

Public finances after the COVID-19 pandemic

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OECD nations face particularly powerful fiscal pressures over the coming decades. To handle these pressures without lapsing into fiscally irresponsibility, they will need to make courageous decisions on both the expenditure and tax sides. This paper looks at the implications of this for budgeting. It focuses particularly on reallocation and expenditure discipline, including the role of spending review, and the design and implementation of expenditure ceilings. The question of the relevance of net worth as a fiscal policy measure is also discussed, as is the potential for efficiency savings to relieve the fiscal pressure on governments.

JEL classification: E620, H12, H50, H55, H61

Keywords: reallocation, expenditure ceilings, net worth

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Abbreviations and acronyms

EC	European Commission
EU	European Union
GDP	Gross Domestic Product
GFC	Global Financial Crisis
IFI	Independent Fiscal Institution
IMF	International Monetary Fund
MOF	Ministry of Finance
MTEF	Medium-Term Expenditure Framework
NFW	Net Financial Worth
NW	Net Worth
OECD	Organisation of Economic Co-operation and Development
SBO	OECD Committee of Senior Budget Officials

Introduction

In the era following the COVID-19 pandemic, government budgeting in OECD countries will be dominated by powerful pressures for additional spending in a range of high-priority areas and by the need, in most countries, for long-term fiscal consolidation. These challenging circumstances will require, over time, major changes in the composition of public finances. All OECD countries will need to strengthen their control over aggregate expenditure and their ability to reallocate expenditure within the aggregate. Some countries will also find it hard to avoid substantial increases in tax levels.

For budgeters, this has two major implications:

- It will be essential to strengthen control over the evolution of baseline expenditure and to exercise heightened strategic discipline in decisions on new spending.
- There will be unrelenting pressure to make substantial *policy-driven expenditure cuts* — i.e. targeted reductions in spending that are achieved by scaling back or eliminating some of the services or benefits which governments currently provide to their citizens. These will be essential to create the fiscal space for high-priority new spending. Efficiency savings alone will not suffice.

These expenditure-side budgeting imperatives will apply to all OECD member countries – albeit in varying degrees – irrespective of the future evolution of aggregate government expenditure in individual nations.

In what follows, we first set the scene by discussing the need for fiscal consolidation and the magnitude of upward spending pressures. We then consider the role reallocation will need to play, the respective contributions of policy-driven cuts and efficiency savings, and the ways in which spending review can best facilitate reallocation. The focus then turns to what needs to be done to tighten expenditure discipline, including in decisions on new spending, the management of demand-driven expenditure, and the enforcement of aggregate expenditure ceilings. Finally, the paper considers the relevance of balance sheet measures for fiscal sustainability.

The focus throughout is on the longer-term challenges of public budgeting in the post-pandemic era. As such, the paper is not concerned with debates about the appropriate stance of fiscal policy in the immediate aftermath of the pandemic.

Budgeting in the *post* pandemic era

Fiscal consolidation

The problem of high debt

In all but a handful of OECD countries, government debt stands today at levels which are too high, and which pose significant long-term risks. Many countries had excessive levels of debt prior to the pandemic. The pandemic increased debt-to-GDP ratios by an average of around 15 percentage points – to which will eventually be added an (uncertain) further amount rising from defaults on government-guaranteed pandemic loans. To assure long-term fiscal sustainability, a majority of countries will need over time to reduce their debt-to-GDP ratios substantially. This will require gradual *fiscal consolidation* – using the term in the OECD-defined sense to mean improvements in budget balances in order to stabilise and reduce debt.

Low interest rates have led to complacency about high debt levels. Economists widely consider that low real interest rates are a long-term phenomenon – that, in technical language, the “natural” rate of interest will be low for many years to come due to long-term structural forces, the most important of which are population ageing and global savings imbalances. A more relaxed view of debt has also been encouraged by the recognition, following Blanchard and others, that it is more the norm than the exception for interest rates on government debt to be below the rate of growth of GDP – something which makes fundamental fiscal dynamics much less scary than in the traditional portrayal of “explosive” debt dynamics (Blanchard, 2019^[1]; 2019^[2]; Mauro et al., 2015^[3]; Arestis and Sawyer, 2006^[4]).

However, even if it turns out that the natural rate of interest remains low for years to come, this would not justify complacency about high debt. The structural forces behind low rates will not endure forever. Population age profiles will eventually stabilise, and there is nothing permanent about global savings imbalances. Given this, a long period of low real interest rates should be viewed as providing an opportunity to gradually and substantially reduce debt, rather than as a reason for tolerating the continuation, or further increases in, existing high levels of debt.

There is, in any event, considerable uncertainty about future trends both in real interest rates and in the other key determinant of debt sustainability, trend GDP growth rates. As Blanchard and Summers (2017^[5]) have noted, “our limited understanding of the relative role of the factors that lie behind the low safe rate [the natural rate of interest]” makes it impossible to be confident about when and whether the current favourable relationship between interest rates and GDP growth will be reversed.

Complacency about the continuation of low interest rates has been shaken by the recent re-emergence of serious inflationary pressures and the consequent prospect of major monetary tightening. Despite the tardiness and timidity of the response of a number of central banks, there are persuasive reasons to believe that putting the inflation genie back in the bottle will require several years of substantially higher real interest rates, together with accelerated quantitative tightening. This will not, however, necessarily worsen the debt sustainability position. (A purely temporary rise in real rates will, given the maturity profile of public debt, have little impact on the interest burden while, at the same time, higher-than-expected inflation will somewhat reduce the stock of government debt in real terms.) Overall, the fiscal sustainability challenge will probably therefore remain a long-term one. Nevertheless, the emergence of a widely-unanticipated inflation problem is a reminder of the need to be modest about our capacity to foresee the economic future. Caution is required, particularly with respect to the sustainability of public finances. Again, this argues for taking seriously the risks associated with high debt levels.

How much of a contribution can and should fiscal consolidation make to reducing the debt burden?

Fiscal consolidation is, of course, not the only way of reducing the debt burden. The higher the rate of trend GDP growth, the less the need for fiscal consolidation. Growth – which must today mean *green* growth – reduces the debt burden by increasing the denominator of the debt-to-GDP ratio. This underlines the importance of growth-promoting structural policies and supportive public investment. There are, nevertheless, a number of question marks concerning the long-term growth prospects of many advanced countries. These include the impact of population ageing on growth, and the extent to which it will prove possible to decouple growth from carbon emissions. If it turns out that we face the prospect of low levels of long-term growth for supply-side reasons, fiscal consolidation will have to play a commensurately greater role in debt reduction.

The extent to which fiscal consolidation will be needed to bring down the debt burden also depends on the use made of other means of reducing debt. Inflation – as just mentioned – is one way of reducing the real debt burden without fiscal consolidation. However, no one – at least no one sane – thinks that letting inflation rip is a good way of restoring fiscal sustainability. As we know from experience in the 1970s and 1980s, the longer action to tame inflation is delayed, the higher the ultimate economic cost of dealing with the problem.

Other potential instruments include financial repression and the cancellation or repudiation of public debt. Financial repression – government regulation to keep interest rates very low – worked well to help reduce high public debt burdens in the decades immediately following WWII. But this was in the context of historically high rates of economic growth. It is hard to see how financial repression can make much of a contribution to reducing the debt burden in coming years if the natural rate of interest remains low and if, in addition, growth rates were tepid. The cancellation or repudiation of public debt, on the other hand, hardly represent credible policy options for advanced economies (see Box 18).

Box 18. Cancelling or repudiating public debt?

In a number of countries, there are calls from the fringes of the public policy debate for the public debt burden to be radically reduced either by central bank debt cancellation, or by government repudiation of debt obligations. Economists understand that the cancellation of public debt by the central bank does not improve the fiscal position of governments – broadly speaking, because the central banks are part of government. (Other things being equal, apparent gains from debt cancellation are offset by equivalent reductions in future dividends paid by the central banks to government.) The repudiation of debt obligations – which is equivalent to the imposition of a selective wealth tax on bondholders – makes no sense unless a country is burdened with unaffordable debt obligations to foreigners. If this is not the case, it will always be preferable to impose exceptional tax measures such as a one-off additional wealth tax (as opposed to a discriminatory *de facto* tax on bondholders) and use their proceeds to repay debt. Use of such exceptional tax measures to reduce debt constitutes, however, an instrument of fiscal consolidation rather than an alternative to it.

Source: Author

It is in the context that it can be said that fiscal consolidation must play an important role in any overall strategy for progressively reducing debt-to-GDP levels in heavily indebted OECD countries.

The extent of fiscal consolidation required will also be greater in those OECD countries with excessive *structural* budget deficits — deficits which have in many cases been increased by spending and tax measures of a permanent nature implemented during the pandemic, or as part of recovery programmes.

Fiscal consolidation will inescapably be a gradual process. How soon it should start is a question for debate. There was at the height of the pandemic a strong consensus that avoiding premature fiscal consolidation – as occurred in many countries after the global financial crisis – was essential and that this would mean that fiscal policy would need to remain highly supportive for some years following the pandemic. The unexpected strength of the recovery, and the emergence of inflationary pressures, have resulted in some fraying of this consensus. However, this is a debate which is of limited relevance to this paper, the focus of which is on the longer term.

More debt to finance investment?

What about the influential proposition that, notwithstanding the pandemic-induced increases in debt, it is reasonable for governments to use additional borrowings to finance high-priority public investment – i.e. investment to address infrastructure deficiencies, improve the economic infrastructure that supports growth, and address the challenge of climate change?

The most general argument for this is based on the “golden rule,” which holds that it is legitimate to use debt to finance (net) public investment as a means of achieving intergenerational equity in the distribution of the costs of long-lived assets. This is an entirely respectable position, with a well-established pedigree in public finance theory. The problem is that the applicability of the golden rule in specific countries must always be subject to the overriding constraint of fiscal sustainability. This means that, while there is no reason why countries with moderate or low levels of debt should feel constrained in applying the golden rule and accumulating some additional debt to finance worthwhile public investment, the situation is different in the large number of countries with high levels of debt. If debt is unsustainably high already, the golden rule cannot reasonably be used to justify pushing it to even higher levels.

Some economists consider that its major problem with the golden rule is the danger of the definition of investment being fudged so as to re-classify substantial amounts of current expenditure as investment (Martin, Pisani-Ferry and Ragot, 2021^[6]; Creel and Ragot, 2022^[7]). However, this problem is arguably exaggerated, and can be dealt without undue difficulty through the application of appropriate accounting rules. The real main problem with the golden rule is that its application *in isolation* would remove any ceiling on debt, and make it possible to increase the debt burden in an unconstrained manner as long as the additional debt is used to finance investment. It is precisely because the golden rule alone cannot guarantee fiscal sustainability that countries that have applied the golden rule successfully in the past (for example, the United Kingdom) have combined it with debt ceilings.

This is a reality which seems sometimes to be forgotten in the current debate about the appropriate future framework of fiscal rules for advanced economies. Many contemporary proponents of the golden rule suggest that it should replace rules setting ceilings for debt. However, it remains as true today as in the past that any government that wishes to improve or maintain the sustainability of public finances must concern itself first and foremost with the burden of debt. Countries with very high debt burdens cannot wish away the problem by shifting their focus away from debt to other fiscal variables. (We return to this topic later, with reference to the question of the relevance of *net worth* as a fiscal policy variable.)

Certain economists have argued for a very limited version of the golden rule which would cover only public investment devoted to tackling climate change. Thus in the European context, Darvas and Wolff (2021^[8]) have proposed exempting from EU debt limits climate-related public investment, which they plausibly suggest will require spending in the range of 0.5-1% of GDP annually for the next decade. Their argument

is that if additional debt is not used, it will be politically very difficult to finance these important investments. This is a line of argument which many will find persuasive. However, we should be clear about what it means for countries where debt is already too high. It amounts, essentially, to the proposition that some further erosion of the sustainability of government finances is acceptable to tackle the climate crisis. Implicitly, it says that, in order to avoid the difficult politics involved in making current generations bear the cost of this investment, we should defer the cost to the future even though we know that this will increase the risk of future debt crises.

Another limited version of the golden rule holds that we should exempt from debt limits those public investments which promise to be self-financing in the sense that they are so growth-enhancing that they will generate additional tax revenues sufficient to cover their costs. In theory, such an exemption would be reasonable. In practice, however, it is unworkable. There is no practical methodology which would allow us to confidently designate certain investments as self-financing. Creating such an exemption would simply be an invitation to abuse.

Advocates of the golden rule as a replacement for debt limits often justify their position by reference to the very real problem of investment being unduly sacrificed during periods of fiscal consolidation. However, in countries where debt is already too high the solution to this problem is not to remove any constraints on the accumulation of further debt for investment purposes. What is required in such countries is, rather, action to ensure that, within the context of an appropriate aggregate expenditure ceiling (see the next section), capital expenditure is not unduly crowded out by current expenditure. One way of doing this would be to impose a sub-ceiling for current expenditure within the aggregate expenditure ceiling.

Given that fiscal consolidation will be required once national economies have recovered, what does this mean for aggregate expenditure?

This depends not only on the extent and pace of consolidation required, but also on the pre-existing levels of taxes and expenditure in individual countries. The pressure to contain aggregate expenditure will be particularly pronounced in countries where tax levels are already high and political resistance to any further increases is most intense. On the other hand, there are some OECD nations where the scope for tax increases is much larger, potentially implying less intense pressure on aggregate expenditure. It would therefore be wrong to assert as a general principle that post-pandemic fiscal consolidation necessarily means reducing aggregate expenditure levels. In at least some countries, there is nothing inherently unreasonable about favouring *increased* government spending, financed by tax increases, while simultaneously favouring a gradual long-term reduction in the debt burden to be achieved primarily through higher taxes and economic growth.

A range of options for increasing taxes have been proposed by various participants in the debate about post-pandemic fiscal policy. In low-tax countries like the United States, there is a large menu of potential measures (Sarin, Summers and Kupferberg, 2020^[9]; Gale, 2021^[10]). However, in many other countries the options are more limited. One major possibility is a one-off wealth levy – something which could achieve a worthwhile one-off reduction in debt levels, but should not be expected to bring debt down to sufficiently low levels as to eliminate the need for ongoing measures to improve the structural budget balance. Another interesting proposal is to use large increases in carbon taxes to achieve a “green” fiscal consolidation by using the additional revenue to improve the budget balance (McWilliams, Tagliapietra and Zachmann, 2020^[11]). While attractive in technical terms, the political feasibility of this latter option is uncertain. It is already proving very tough in many countries to secure political acceptance of higher carbon taxes even when promises are made to return the additional revenue to citizens in the form of some type of “carbon dividend”.

Spending pressures

There are considerable differences between countries with respect to the degree of fiscal consolidation required and the scope for tax increases in the coming era. Everywhere, however, a further factor will be at work — powerful pressures for additional spending in a range of high-priority areas.

OECD governments already face immediate pressures for additional spending which it is very hard for them to ignore. There is a requirement here and now to spend more to repair public health systems and to respond more aggressively to global warming. Added to this is the fact that most OECD countries continue to face rising age pensions spending – a pressure which will endure for the next decade or two (although after that pension spending is projected to stabilise or fall in many countries).

But the problem is broader and more lasting than this. There are reasons to believe that governments face long term spending pressures which will, other things being equal, cumulatively increase government spending by an amount equivalent to 7% or more of GDP in most advanced countries by the middle of the century (Robinson, 2020^[12]). These spending pressures will be particularly pronounced in the areas of healthcare, long-term care, climate change and, in certain countries, infrastructure and defence.

The biggest source of long-term expenditure pressure will be healthcare. Increased spending to build better defences against future pandemics will play a role pushing spending up, but it will be a relatively minor one. By far the most important factor over the long haul will be the impact on spending of the expanding technological capabilities of medicine — that is, of the cost of new and better medical treatments. Long the main driver of increasing health expenditure, technology will play an even bigger role in coming decades because of the impact on medicine of the bioscience revolution which is currently underway. The intrinsically high cost of the precision and customised medical treatments which will increasingly become mainstays of medical practice will, in particular, have a huge impact on government budgets. It is the impact of technology which is the principal reason why healthcare spending is set to grow greatly over the long term – conservatively, by at least 4% of GDP in all countries by the middle of the century.

Demographics will also play a role in pushing health spending up. However, the expenditure impact of population ageing is widely exaggerated, and will be significantly less than the impact of technology. It has been a mistake for certain governments to view long-term health spending pressures primarily as a problem of ageing.

Long-term care will be another area of substantial spending pressure. Expenditure on long-term care is more sensitive to population ageing than health expenditure, mainly as a consequence of the impact of age-related dementia. The projected large increases in the elderly and very elderly part of the population in coming decades therefore imply frighteningly large projected increases in the prevalence of dementia. (This now looks likely to be aggravated by the longer-term impact of COVID-19 in accelerating the rate of decline of cognitive capacity of a certain portion of those affected (Liu et al., 2022^[13])). Many governments already face substantial political pressure to provide more and better support for elderly people who require extended periods of care due to dementia or other serious disability. Major expansions of the role of government in long-term age care have already occurred in certain countries, such as Japan and the Netherlands, and are being actively mooted by governments in other countries, including France and the United Kingdom.

Governments will, of course, need to spend substantially for at least three decades in order to address the problem of climate change. The additional spending concerned will increasingly be a political imperative, because voter opinion in most countries is shifting to demand a more aggressive policy stance. At a minimum, governments will need to spend considerable amounts on abatement and adaptation measures pertaining to public infrastructure and assets, together with lesser amounts in other areas such as adjustment assistance. Public transport will need to be expanded and public buildings insulated and decarbonised. Roads, bridges and other infrastructure will have to be reinforced to cope with higher temperatures. Coastal defences will require reinforcement, as will the capacity to deal with forest fires and

other climate-related natural disasters. Government assistance will be needed to smooth the pain of the decline of the fossil fuel industry, and for other adjustment measures such as the repurchase by government of properties which can no longer be protected from flooding and fires. Finally, notwithstanding that the costs of de-carbonising energy systems should not in general be shouldered by government budgets, significant budgetary support will also be unavoidable if we are to greatly speed up the adoption of crucial nuclear technologies, such as the EPR and small modular reactors.

Available estimates suggest that the additional climate-related spending required will, at a minimum, amount to something less than 1% of GDP per annum over the next three decades (Robinson, 2020^[12]). It is, however, likely that governments will end up spending significantly more than this in response to global warming. This is because voter resistance to high carbon taxes increases the reliance which many governments place on costly subsidies to induce businesses and households to make the green energy transition. The increased use of subsidies will also reflect the reality that greater reliance on regulatory interventions can only make up part of the policy gap created by unduly low carbon taxes.

In the wake of the Russian aggression against Ukraine, there is today a much more widespread recognition of the need for many OECD countries to spend significantly more on defence. For quite a few European countries, spending will need to increase by *at least* 1% of GDP per annum. Spending will also need to be boosted by many countries in the Asia-Pacific region, where the security risks are palpable and a number of countries have chronically underfunded their militaries.

To all of this may be added the significant pressure that has built up, in some OECD countries, to spend to address accumulated infrastructure deficits – that is, major shortfalls in public infrastructure due to inadequate investment and maintenance expenditure.

To the extent that it is not possible to finance all this additional spending via tax increases, it will be necessary to do so by creating fiscal space by reducing spending in other areas. There are two *appropriate* ways of doing this. One is to make policy-driven expenditure cuts, and the other is measures to improve efficiency. Governments have, to varying degrees, done both of these things over recent decades. However, they have also in many cases responded in a less appropriate way, by *unsustainable underfunding* in important areas of government services. Inadequate maintenance and underinvestment in public infrastructure in some countries is one example of this. So is the underfunding of defence. Another example is the way in which some countries have unsustainably “saved” money by squeezing the remuneration of major categories of public employees such as nurses, doctors and public university staff – to the extent that, in the worst cases, pay has actually fallen significantly in real terms. Public hospitals have been squeezed badly in some countries, forcing them to operate well over capacity, and leading to serious shortages of crucial supplies, drugs and materials. In certain countries, the fiscal impact of this unsustainable underfunding has been in part hidden from view by the off-budget accumulation of debt by public and quasi-public hospitals. These are all problems which it is important to frankly acknowledge.

Budgetary “savings” achieved by these means are unsustainable in the sense that they end up, sooner or later, being reversed. For example, in countries which have particularly severe infrastructure deficits, the pressure for action – much of which will involve significant government spending – has become strong in recent years. What this suggests is that the use of unsustainable underfunding as a means of coping with structural spending pressures has reached a dead end in many countries. Like a wound spring bouncing back, the accumulated problems which this strategy has created will actually aggravate the pressure on budgets in coming years.

The implications of this are clear: Even if one takes the “dovish” view — that fiscal consolidation should happen only very gradually, and that the reduction of aggregate expenditure is not generally an appropriate objective — it remains the case that managing the expenditure side of government budgets will be very challenging. Irrespective of the magnitude of budget adjustments required by fiscal consolidation, there will be powerful pressure to make cuts to baseline expenditure in other areas so as to provide the fiscal

space required for additional spending on healthcare, long-term care, global warming and other areas. *Reallocation* will, in other words, have an essential role to play.

Reallocation

In the search for ways of reallocating funds from baseline expenditure in order to increase fiscal space and support fiscal consolidation, a large part of the focus will need to be on *policy-driven* expenditure cuts. The reason for this is that the only real alternative means of cutting baseline expenditure is *efficiency savings*, and it is unrealistic to believe that efficiency savings alone can deliver anything like the additional fiscal space which will be needed.

The term “efficiency savings” is used here to refer to savings made by measures which enable government to deliver the same services or benefits, or achieve the same outcomes, at lower cost. As such, efficiency savings need to be clearly distinguished from expenditure reductions achieved by scaling back or eliminating services or benefits. Unless offset by improved service quality, the latter constitute policy-driven expenditure cuts, even if the services or benefits concerned are considered to be low priority or inappropriate from a policy perspective.

The pursuit of efficiency savings will continue to be an important component of public financial management. Budgetary and management mechanisms – including performance budgeting – designed to promote improved efficiency will need to be further strengthened. But it is important to be realistic about the magnitude of potential efficiency savings, and the timeframe required for achieving them.

Extravagant claims about the potential efficiency savings available governments are often made. For example, a recent Spanish think tank report claims that potential efficiency savings in that country mount to as much as 41% of government expenditure (IEE, 2020^[14]). On this basis, it declares that Spain could achieve the fiscal consolidation that it will need in coming years entirely through efficiency measures, without either tax increases or reductions in public service provision. The think tank is not alone in its sunny optimism about the scope for efficiency savings. The analytic techniques that underpin its claims have been used by economists in other countries to make similar claims about the scope for huge, essentially painless, expenditure reductions.

It would be wonderful if there were such enormous scope for painless spending cuts and easy fiscal consolidation. This is, however, an illusion. As discussed in Annex 1.A, the literature which produces these types of estimates of potential savings cannot be treated seriously because the methodologies employed lack credibility.

Experience and common sense suggest that it is an illusion to believe that there is, in most OECD countries, a huge stock of “low hanging fruit” of potential efficiency savings which could be quickly realised by any government sufficiently determined to achieve them. Even the most determined efforts to find efficiency savings through spending review have yielded savings well below 1% of GDP (Robinson, 2020^[12]). There have, of course, been comprehensive spending reviews in some countries that have achieved considerably larger expenditure reductions than this, but these have primarily taken the form of policy-driven expenditure cuts.

We also need to bear in mind that many OECD governments have over past decades already made major long-term efforts to realise efficiency savings, using a range of tools apart from, and in addition to, spending review. There are, of course, some countries which have lagged behind in this respect, and where there is no doubt correspondingly greater potential for future efficiency savings. But those who believe that the scope for efficiency savings is enormous everywhere are drawing on ideological preconceptions rather than evidence.

The potential future contribution of efficiency savings also needs to be seen in the context of the long-term cost problem which faces significant areas of government services. This is the problem of the so-called *cost disease*, famously identified by William Baumol. Baumol pointed out that, as long-term growth in economy-wide average labour productivity raises living standards, wages are pushed up in every sector of the economy, including government. In most sectors of the economy, this is not a problem because these wage increases are offset, and more than offset, by rising productivity. However, in some service sectors where there is limited scope to increase labour productivity through automation or other means, these long-term increases in wages cannot be offset through rising productivity. The consequence is that in such sectors the cost of the services concerned rises over the long term. School education and long-term care are classic examples of the problem, but it also affects some other areas of labour-intensive government services — although health is fortunately not (despite what many people think) one of these (Robinson, 2020^[12]).

The cost disease imparts a certain upward bias to aggregate public spending. Government has to work exceedingly hard to increase productivity across its operations as a whole in order to be able even to offset the impact of the cost disease. It has, in other words, to run hard even to remain on the same spot. In this context, the most realistic way of viewing the potential role of efficiency savings over the long haul in government may be as a means of offsetting, at least in part, cost increases in those areas particularly affected by the cost disease. When looking for fiscal space to finance new spending, governments must, in the main, look elsewhere.

Realism about the scope for efficiency savings therefore suggests that, in the long-run, it will prove impossible to find substantial fiscal space to cope with increased spending on healthcare, climate change, long-term care and other areas without either increasing taxes or making significant policy-driven expenditure cuts in other areas of government services and benefits. Exactly what mix of tax increases and expenditure cuts will be chosen by governments will vary between countries. But even in countries with the greatest scope to increase taxes, it is very difficult to see how significant policy-driven expenditure cuts can be avoided.

While it may be inappropriate, in most countries, to talk about cuts to *aggregate* expenditure, significant policy-driven expenditure cuts in *specific areas* of government services and transfers are absolutely essential as a key means of providing fiscal space.

Where can policy-driven cuts be made?

Over past decades, many OECD governments have already made significant policy-driven expenditure cuts in a number of areas of public services and benefits. To the extent that this is the case, it imposes certain limits on where future cuts might be made.

Notwithstanding this, no area of government expenditure can be exempted in the future search for options for policy-driven expenditure reductions. Focusing primarily on discretionary expenditure rather than mandatory spending will not work (noting that the terms discretionary and mandatory do not fit with the budgetary systems of all OECD member nations – see Box 19). The search for potential cuts must therefore apply to all expenditure which is classified statistically as general government, all of which impacts ultimately on the government's fiscal position.

Box 19. Mandatory and entitlements expenditure

Although discussion of the problems of budgeting for social protection and health often makes use of the concepts of “mandatory” expenditure and “entitlements” expenditure, these essentially American terms are not necessarily appropriate in other countries. Although both these labels may be widely applied to social protection expenditure, this is not the case with respect to healthcare expenditure.

Mandatory expenditure in US terminology is expenditure which is required by legislation other than the budget law (appropriation act). Entitlements expenditure, again in US terminology, is that component of mandatory expenditure where the recipient has a statutory right to receive a specific benefit or service. Defined in this manner, these terms accurately describe Medicare and Medicaid benefits payment expenditure in the United States. They also describe much health expenditure in some other OECD countries. But not everywhere. In a number of countries, most government health expenditure is funded through the ordinary budget, or by other means which do not meet the mandatory expenditure definition. There are, moreover, some countries where citizens do not have a statutory right to treatment but, rather, a generally understood *de facto* right.

It is more useful in discussing the issues of managing healthcare and social protection expenditure from an international perspective to use the concept of *demand-driven expenditure*, underpinned by a broader concept of entitlement expenditure. Demand-driven expenditure is government spending on benefits or services for which: 1) citizens have a legal *or de facto* entitlement; and 2) the level of expenditure is, given prevailing eligibility policies (laws or policies on eligibility for the benefit or service), determined in large measure by the level of demand.

Source: Author

The importance of maintaining a focus on the entirety of government expenditure is increasingly apparent in countries where major categories of welfare benefit – and in some cases also much healthcare expenditure – are handled by social insurance funds which are separate institutionally, and as accounting entities, from the budget. Historically, the rationale for this independence was that these funds were intended to be self-funding, based on contributions (e.g. worker and employer contributions to unemployment insurance) and/or earmarked taxes. Over time, however, this rationale has diverged from reality. In a number of major OECD countries with social insurance funds, the principle of self-financing has been replaced by confusing arrangements in which transfers from the government budget play a major role in keeping fund finances afloat. In other countries, where self-financing has so far been preserved, social insurance funds are facing certain “bankruptcy” at some point in the future, at which time they will undoubtedly receive major budgetary transfers.

The credibility of the concept of independent social insurance funds has been further thrown into question by the impact of the pandemic, during which the finances of many of these funds have deteriorated dramatically in ways which it is hard to see being rectified without further major budget transfers. Governments have in some cases responded to this situation with elaborate arrangements “extending” the time periods over which these funds will supposedly be required to restore their financial positions. It nevertheless remains clear that, ultimately, the expenditure policies which govern welfare benefits and health expenditure covered by “independent” social insurance funds have just as much impact on the government’s fiscal position as expenditure which is formally classified as within the budget. It is untenable to believe that future expenditure policy in these areas could be treated more indulgently because it is institutionally separated or because policy in this area is formally the responsibility of the social partners.

Particularly in countries with the most expansive welfare states, it is a stark reality that the broad spending pressures of the coming era will lead governments to further review and prune welfare benefits. This should be done in a manner which preserves, and even strengthens in some areas, the social safety net. Sickness and disability benefits are, however, a problem area in certain countries. In others, there remains a need to shorten somewhat the period for which the unemployment benefits are, in normal times, paid at very high levels of income replacement (e.g. 80% and above). Retirement benefits reform, in the light of increased longevity, remains work in progress in many countries.

The scale of the challenge of making policy-driven cuts sufficient to provide future fiscal space also means that tax expenditures need to be targeted as part of the search. Although the magnitude of tax expenditures differs significantly between countries, their cost to the public purse is large virtually everywhere.

Politics is by far the biggest obstacle to making major policy-driven expenditure cuts. Whether they target age pensions, unemployment benefits which remain too high for too long, inappropriate subsidies to industries, free university education, or other areas, the political resistance to cuts is usually considerable. The political resolve of governments is therefore always going to be the most important factor in the capacity to make the cuts which will be required in future to help find essential fiscal space and contribute to fiscal consolidation.

Notwithstanding this, budgeting mechanisms and processes have an important supporting role to play. They have a particularly important role to play in making sure that governments always have at their fingertips a full menu of well-designed savings options.

Spending review

Spending review has a crucial role to play in helping governments manage the enormous budgetary challenges of the post-pandemic era. What will be needed in the coming years is spending review in the classic sense – that is, the systematic review of baseline expenditure with the primary objective of developing savings measures. This means spending review focused squarely on identifying reductions to fund new priorities (reallocation) and to control total expenditures.

Spending review has enjoyed growing popularity in recent years. There is, however, a problem with the way the term has come to be used. In the years immediately following the GFC, spending review was widely understood internationally to mean review focused on developing savings measures. In more recent times, however, the term has increasingly been used in a different sense. The emphasis on the search for savings measures has faded, and “spending review” is now often used to refer to any type of expenditure analysis aimed at improving the quality of public expenditure, even when this has nothing to do with the budget.

Some governments which purport to have established systems of spending review in recent years have in fact created what are better described as *performance review* systems. These are systems which review agencies, programmes or processes with the aim of identifying *performance improvement measures* – i.e. measures which can be taken to improve effectiveness and efficiency. There is in these systems little or no focus on identifying potential savings measures.

It is a good thing that there are today more countries with government-wide performance review systems. However, these are not systems that are designed to serve the needs of budgetary resource-allocation decision making. While reviews carried under these systems occasionally suggest savings measures, this is not usually the case. For the most part, the performance improvement measures which they recommend relate to policy redesign and changes in business processes or organisational structures. Because this type of review does not typically provide ministers and ministries of finance with many of actionable savings measures, it is of limited value in the search for increased fiscal space and better control over aggregate expenditure.

Given the magnitude of the fiscal challenge in the coming era, governments will need to rediscover spending review in the classic sense, and build systems which are specifically designed to deliver savings options that governments can consider as part of the budget process.

There is nevertheless value in having broad performance review *as well as* more narrowly-focused savings-oriented spending review. Recognising this, some argue for combining the two by making the search for savings options a component of a broader performance review mechanism. However, experience suggests that if the search for savings options is merely part of a broader performance improvement mandate, it will tend to get lost. There is also no surer way of overloading spending review working groups – which are in most cases required to complete their work in periods of several months – than by asking them not only to identify savings options, but also to search for other possible ways of improving policy, management and the quality of spending generally.

Closely related to this is the question of institutional responsibility for spending review. There are strong reasons to believe that the only way of ensuring that spending review remains primarily focused on the search for savings options is to place the spending review system under the direct control of the ministry of finance – like the successful Danish spending review system. The MOF's primary role in the budget process and its closeness to the key political decision makers helps to ensure that the spending review system is tailored to the needs of budget preparation. In countries with a powerful office or ministry of the president or prime minister, that body also needs to work closely with the MOF in managing the spending review process.

At odds with this conception of spending review as a process managed directly by the MOF is the approach that has been adopted in certain countries where spending review has been made the responsibility of an independent body outside executive government (see Box 20). This is a model which *may* be appropriate for broad performance review, but is arguably not appropriate for savings-focused spending review.

Box 20. Spending review in Spain

Spain has introduced an arrangement under which the principal responsibility for spending review lies outside executive government, having been assigned to the independent fiscal institution, the *Autoridad Independiente de Responsabilidad Fiscal* (AIReF). AIReF has produced a succession of high-quality expenditure analysis reports. This expenditure analysis is not, however, aimed for the most part at the development of savings options. It remains to be seen whether this particular administrative arrangement will work effectively to deliver on what is arguably the core function of spending review. In addition, the question arises as to whether assigning this type of function to an independent fiscal institution may impact adversely on its effectiveness in its primary role as a guardian of fiscal sustainability.

Source: Author

Spending review needs to be a recurring process, whether conducted annually or at multi-annual intervals. It needs to be closely integrated into the overall budget preparation process. Beyond this, there are a range of options for the design of spending review processes, the choice of which depends on national political, budgeting and administrative processes. For example, whereas in many countries a “joint” review model is most appropriate, in others a “bottom-up” model is more suitable. What is true everywhere is that, given the fiscal challenges of the coming era, considerable thought needs to be given to improving the design of spending review processes so as to sharpen their focus on delivering substantial, actionable savings measures. The OECD *Best Practices for Spending Review* are an important contribution in this regard.

How much of a contribution can spending review make in the coming years? In asking this question, it is important to distinguish between the technical and political functions of spending review. The main technical role is to precisely define savings options, to provide robust estimates of their financial impact, and to identify savings options of which budget decision makers are not already aware. The political role of spending review, on the other hand, is to help in making the implementation of savings options politically feasible, both by communicating the narrative about why savings are needed, and by persuading citizens of the merits of specific savings measures.

The role of spending review in presenting political leaders with savings options of which they were previously unaware needs to be seen in perspective. Typically, many of the major savings options available to government are already well-known – at least in broad terms – to the MOF and to many politicians. The problem is not identifying these options. It is the political difficulty of implementing them. To the extent that this is the case, the political role of spending review becomes particularly important.

Given the challenges of the post-pandemic era – and the important role that reallocations from baseline expenditure will need to play – spending review will have a role to play which is at least as important as during the period of consolidation subsequent to the GFC. Governments may, in this context, wish to design spending review processes which are able to provide maximum assistance with the difficult politics of policy-driven expenditure cuts. There are a range of ways of doing this, all of which require that spending review is not simply internal bureaucratic exercise which provides advice to political leaders behind closed doors. Spending review must, instead, become at least in part an exercise in political persuasion.

One option is the Dutch approach, in which the savings options identified by regular multi-annual spending reviews are made public and become part of the political debate in the run-up to national elections.

Another option which may appeal to some governments is that of convening, at some point over the next few years when the recovery process is well-established, major one-off semi-independent public spending reviews with a mandate to present bold savings options to help meet the challenges of post-pandemic budgetary policy. These would be wide-ranging reviews which would present public reports outlining the context and rationale for savings – i.e. the nature of the fiscal challenge facing governments in the post-pandemic era – and laying savings options explicitly on the table for public debate. They would be presided over by spending review commissions *partly* comprised of respected figures who are not serving officials or politicians. The intention would be that they help with the political framing of cuts, both through their reports and because of the credibility of the membership.

Such spending reviews would not constitute external reviews in the sense of reviews conducted by outsiders independently of government. Experience tells us that external reviews of that type do not work well because they lack the necessary insider knowledge of government (Robinson, 2014^[15]). They would, rather, be *semi-independent* in that the civil service would remain closely involved. The MOF and other relevant central agencies would provide the main technical support to the spending review commission and actively present it with savings options. Serving or former senior government officials would also constitute part of the membership of the commission.

The challenge which such commissions would be tasked with addressing would need to be carefully framed, so as to reflect the way in which the relevant government views the fiscal challenge of the coming era. Some governments may wish to place primary emphasis on the need to find fiscal space: in other words, on the positive requirement to spend more on health, climate change and other areas and the consequent need to make savings elsewhere to help with the financing of this additional spending. Other governments may wish to focus more on the imperative of fiscal consolidation – i.e. the dangers posed by high debt and the need to reduce it. These two messages are, of course, not mutually exclusive, and may be combined. What is crucial that it is the government which frames the narrative? There can be no question of simply appointing a commission and leaving it to develop its own view of the nature of the fiscal challenge *de novo*. Government guidance on the framing of the challenge needs to be provided both through careful drafting of the terms of reference, and through the selection of appropriate members of the

commission. At the same time, part of what the government would be looking for from such an external spending review would be a report which helps explain to the public the nature of the fiscal challenge and the rationale for making significant expenditure cuts to baseline expenditure.

The scope of any such external spending review should be broad – covering all government expenditure, as well as tax expenditures. In certain countries, where tax increases should play a significant role in meeting the fiscal challenges of the future, consideration might be given to broadening the mandate of such a commission to also address the broad question of the need for tax increases, although probably not to the extent of tasking the commission with developing detailed proposals for tax increases. In most countries, however, it would be appropriate to keep the focus strictly on the expenditure side.

Major semi-independent public spending reviews of this type would be essentially one-off exercises, with spending review subsequently reverting to the default model of recurring review in the country concerned.

The political economy of reallocation

The politics of budgeting are unquestionably going to be particularly difficult in the post-pandemic era. Policy-driven expenditure cuts are, generally speaking, politically more sensitive than efficiency savings. Some policy-driven expenditure cuts are particularly difficult – pension reform being an obvious example – but none are easy electorally. If, moreover, it turns out that the coming era is one of slower economic growth, the politics of budgeting will be even more challenging.

There are no guarantees that rational fiscal policy will prevail in this context. To the contrary, there will be considerable temptation for governments to have recourse to fiscally unsustainable deficits to minimise or avoid political pain.

Fiscal outcomes in specific countries will depend upon three key variables – political institutions, the political culture, and the persuasiveness of the narratives deployed by governments to justify necessary expenditure-side measures.

Political institutions will play a vital role in determining outcomes. In general, strong governments in parliamentary systems will be best placed to take the measures required – following the usual political rule of acting quickly after elections. By contrast, countries where executive and legislative power is in different and often competing hands will find it much harder to do what is needed. More generally, it will be the extent of what political scientists refer to as “veto points” in the political system – in other words, features of the political and institutional system which enable opponents to block reforms – which will be crucial. Veto points can take many forms – including not only the separation of legislative and executive power, but other features such as the possibility of overruling the government via referendum, and the tradition that reforms must be agreed by the social partners. There is no magic solution to these problems.

All this makes the framing of expenditure-side measures enormously important. As mentioned above in the discussion of spending review, there are two obvious narratives that might be deployed. One is the fiscal consolidation narrative – i.e. the need to bring down debt to avoid a future fiscal crisis. The other is the fiscal space narrative – the need to make cuts to shift resources to finance high-priority new spending.

A number of OECD countries successfully deployed the fiscal consolidation narrative after the GFC in order to convince electorates to accept expenditure cuts. The political effectiveness of this narrative varies greatly between countries, depending on their political cultures. Whereas in some OECD countries a large section of the electorate attaches considerable importance to fiscal responsibility, there are other countries where this is much less the case – in particular, countries where there is very widespread acceptance of the alternative narrative which holds that any concern about deficits and debt is an “ultra-liberal” obsession and that any cut to expenditure in any area represents “austerity.” Setting this aside, however, there are questions about the potential effectiveness of the fiscal consolidation narrative in a context where interest rates are low and where huge recent increases in debt levels have had no immediate adverse

consequences. In this context, the success of governments in downplaying concerns about debt increases during the pandemic may come back to haunt them in the coming years. It may be that the re-emergence of inflation changes the politics of fiscal responsibility to some extent, but this remains to be seen. Overall, it would seem that the fiscal consolidation narrative alone is unlikely to be sufficient politically.

This points to the important role that the fiscal space narrative will need to play. Governments will, hopefully, experience success in persuading voters that reallocation must play a major role in funding high-priority new spending. However, this narrative has its own political strengths and weaknesses. It remains the case that the benefits of such new spending will be widely diffused across electorates, and to an important degree will only accrue to future generations, while the pain of policy-driven expenditure cuts will be felt by specific groups which will have a strong incentive to mobilise to fight the cuts. Whatever approach is adopted, governments will need considerable political courage to do what needs to be done.

Expenditure discipline

Given the intensity of expenditure-side pressures in the post-pandemic era, it will be essential to reinforce the budgetary and expenditure policy instruments for controlling aggregate expenditure. The challenge will be how to be responsive to legitimate demands for additional spending in high-priority areas without losing control over aggregate spending. This raises a number of important issues. One is the importance of effective decision-making processes on new spending. Another is that of controlling demand-driven spending. Closely related to this is the issue of the future role of expenditure ceilings.

New spending decisions

With respect to new spending proposals, the intensity of the pressure for additional spending creates a risk that large amounts of money will be wasted. In responding to the challenge of global warming, for example, it would be all too easy to lavish money on certain types of extensions to public transport systems for which there is limited passenger demand, or on excessive subsidies to households and businesses for abatement investments. With respect to long-term age care, governments could easily go too far in shouldering the cost burden. In this as in any other area of social protection expenditure, it is crucial that careful policy decisions are made concerning the way in which costs and risks are shared between individuals and the state.

While nothing can ultimately prevent political leaders from making poor decisions about new spending if they are determined to do so, good budgetary processes can potentially mitigate the danger significantly. Such processes should be designed in such a way as to ensure, as far as possible, that no proposal is decided by the political leadership without high-quality advice, close scrutiny and reliable costing. The types of administrative rules and processes necessary to ensure this are clear, and are practiced to varying degrees by most OECD member nations. They include:

- Clear requirements concerning the information which spending ministries must submit with any new spending proposal.
- Well-established routines in the central agencies (particularly the MOF) for the review of all major new spending proposals.
- Robust methodologies and processes for the medium-term and longer-term costing all new spending and tax expenditure proposals, and transparency about these costs.
- The circulation of new spending proposals to all relevant spending ministries for their review and comment prior to political consideration.
- The enforcement of rules requiring minimum advance notice prior to the consideration by the political leadership (e.g. council of ministers/cabinet) of any proposal, and

- Rules strictly limiting the scope for the presentation of new spending proposals outside the budget preparation process.
- Additional information and procedural requirements specific to major capital projects.

In the minority of OECD countries where budgetary power is highly fragmented between executive government and the legislature, with the legislature exercising substantial power over the level and composition of expenditure, there is in certain cases also a compelling need for additional reforms to the legislative budget process to instil greater discipline in new spending decisions. In the United States, for example, there is a need to create an integrated “serious annual appropriation process,” capable of delivering a unified budget “enacted on time, without a long series of continuing [budget] resolutions until well after the beginning of the fiscal year” (Peterson and Murray Esposito, 2021^[16]). In a context where new spending initiatives often originate from the legislature rather than from executive government, the independent costing of such new initiatives by an independent fiscal institution – following the example of the US Congressional Budget Office – is also essential.

Demand-driven expenditure

Demand-driven expenditure (see Box 21) has always posed a particular problem for the management of aggregate expenditure. The two types of demand-driven expenditure which create the most headaches for budgeters are, of course, healthcare and social protection. Part of the problem is that healthcare and major components of social protection – including age pensions, disability benefits and age care – have a powerful long-term upward momentum.

The other problem is that for both categories of spending there is significant uncertainty about the level of demand and, consequently, the level of expenditure. This uncertainty exists both within any given financial year and, to an even greater degree, over the medium term. In the case of social protection benefits, the uncertainty pertains mainly to the numbers of people eligible. In the case of healthcare, there is considerable uncertainty in relation to both the volume and unit cost components of demand – i.e. the number of cases which health providers will handle, and the case costs (average cost per treatment).

It is impossible to limit uncertain demand-driven expenditure by budget execution ceilings – that is, by setting an expenditure allocation in the budget and insisting that it not be breached during the financial year concerned. Managing this type of expenditure is a challenge which must be faced in large measure through the use of tools which lie outside budgeting – starting with eligibility policies. For social protection benefits, eligibility policy is all-important: expenditure is controlled *mainly* by setting policies on what benefits will be provided and who is entitled to receive those benefits. For healthcare, things are more complicated. Eligibility policies – which in this case means policies on what types of conditions and treatments government will pay for, and who is eligible to receive government-financed treatment – remain very important. But it is not possible to control health spending by means only of eligibility policy. One reason for this is that healthcare expenditure is bedevilled by a principal-agent problem which does not generally arise with respect to social protection benefits. The problem is that healthcare service providers have considerable discretionary control over both volume and cost, and (depending on the way in which funding systems are designed) often have incentives to unnecessarily increase either or both. The principal-agent problem is compounded by the fact that case costs can legitimately vary considerably between patients for the treatment of the same condition due to so-called “heterogeneity” — such as differences in the underlying health status of patients that mean that some patients require more care than others.

The fact that citizens have a legal or de facto right to social protection benefits and healthcare means that it is impossible to limit spending in any financial year by saying that, once the budget for the year has been spent, anybody applying for benefits or seeking treatment will simply be refused. This is particularly obvious

when the government is paying for citizens to receive treatment by physicians or other healthcare providers in private practice who are remunerated on a fee-for-service or case payment basis.

It might be thought that, by contrast, governments should at least be able to impose strict budget execution ceilings on government healthcare providers such as public hospitals. In a hypothetical system in which public hospitals are funded exclusively by taxes – with no charges imposed on patients – one might assume that if the government gives a hospital a USD 120 million budgetary allocation for the next financial year, the hospital could reasonably be required to strictly limit its spending to USD 120 million. Unfortunately, things are not as simple as this. Patients are referred to hospitals, or simply turn up, and they expect treatment. For many of the conditions or injuries concerned, treatment must be provided either immediately or within a relatively short time frame. Hospitals will then be expected to treat those concerned irrespective of whether they will breach their budgets in doing so. This has been particularly graphically illustrated during the pandemic, but is also true in normal times.

Faced with this reality, governments do not, generally speaking, demand that public hospitals never exceed their budget allocations. They grant hospitals considerable operational autonomy, one aspect of which is a capacity to run deficits or surpluses. When confronted with levels of patient demand which cannot be met within their budget allocations, public hospitals can and do exceed those allocations, running deficits.¹ This provides an essential degree of flexibility in the face of uncertain demand. But it can also mean that if public hospitals are chronically underfunded, they will tend to accumulate *increasing* debt – debt which governments find themselves obliged, sooner or later, to pay off.

The lack of firm budget execution ceilings on hospitals or on government health expenditure generally is what is referred to in the literature as the problem of the “soft” budget constraint (Schwierz, 2016, pp. 36–37^[17]). The lack of hard budget execution ceilings does not, of course, mean that healthcare expenditure is totally uncontrolled. It is not the case that spending is determined exclusively by the exogenously-determined level of patient demand. Public hospitals do not just ignore the budgets they have been given. To a certain extent, demand can be managed by means such as measures to limit over-servicing and measures to contain input costs (e.g. pharmaceutical price controls or negotiated prices, preventing inefficient duplication of expensive equipment). But the scope for managing expenditure through measures which do not impact adversely on citizens’ entitlement to timely and appropriate healthcare treatment is inherently limited. It is problematic if, in order to limit healthcare spending, governments make decisions which lead to unacceptably long waiting lists, reduced quality of treatment and excessive patient co-payments.

Ceilings on healthcare expenditure?

Faced with the problem of rising and uncertain healthcare expenditure, a number of governments have sought to control spending through the use healthcare expenditure ceilings – that is, dollar limits on expenditure in specific years which apply either to total healthcare expenditure, or total expenditure with certain limited exclusions. One of the first countries with a health insurance scheme to do this was Germany, where ceilings have been applied since the early 1990s. France followed shortly after with the system with a system of medium-term “targets” (ODNAM) (Moretti and Kraan, 2018^[18]; OECD, 2015^[19]). Outside Europe, another example is the Medicaid “global cap” introduced in New York State in 2011. This sets annual ceiling for the State’s Medicaid expenditure – basically payments to independent physicians and hospitals under the Medicaid system – calculated so as to ensure that annual growth in total spending does not exceed a ten-year rolling average of the medical price index. This makes the New York ceiling unique in that the ceilings are based upon an expenditure rule (see Annex 1.B for the distinction between expenditure ceilings and expenditure rules).

Setting a ceiling for healthcare expenditure is one thing. Making it work – particularly over the medium-term – is a different matter entirely. Enforcing the ceiling is far from easy given the soft budget constraint, the uncertainty about demand, the power which providers exercise over volume and case costs, and the

risk of rationing. Just how tough this challenge is underlined by the fact that governments which have set healthcare expenditure ceilings have more often than not failed to make them work. Whether it is the Netherlands throughout the entire period 1994-2012 (Brändle and Colombier, 2020^[20]), France through much of the history of ONDAM, or any of a number of other examples, the fact is that healthcare expenditure ceilings have been often exceeded. Moreover, in many cases where they have been enforced, it has been through measures which have eroded citizen entitlements to timely and appropriate treatment.

But not everywhere. Germany has been quite successful in making healthcare expenditure ceilings work as an anchor for growth of healthcare expenditure (Brändle and Colombier, 2020^[20]; Busse and Blümel, 2014^[21]; Busse et al., 2017^[22]). The Netherlands also has succeeded in more recent years in enforcing ceilings, essentially by adopting a corporatist approach to reach agreements between government, insurance funds and patient organisations on the growth on healthcare costs (Kroneman et al., 2016^[23]; Brändle and Colombier, 2020^[20]). The United Kingdom has also had a good track record in applying ceilings (under its “departmental expenditure limits” system) although, as discussed below, its circumstances are somewhat special.

The experience of Germany shows that making healthcare expenditure ceilings work requires a complex monitoring and enforcement mechanism. The first prerequisite for success is that the overall sector ceiling for healthcare is decomposed into detailed sub-ceilings in order to clearly specify the role which every player in the health sector must play in meeting the overall ceiling. A sub-ceiling must, for example, be set for the hospital sector and the budgets allocated to each public hospital must be clearly specified within that sub-ceiling. It is insufficient to set sub-ceilings only for public sector health providers. Ceilings must also be set for private sector health providers who deliver government-financed health services. This includes a ceiling for independent physicians. But not even this is sufficient. As German experience shows, to make a ceiling for the expenditure of independent physicians effective, it is necessary to disaggregate this into ceilings for *each physician practice*. In this context, a key element is the continuous adjustment of the pay schemes of service providers.

This means that *no* branch of the health sector can be funded on an open-ended fee-for-service or case payment basis – i.e. by means of a system where they are reimbursed without limit, at standard rates, for whatever services are provided or cases which are treated. The most usual approach which is used is to combine the ceilings with remuneration on a case payment or fee-for-service, but to drastically reduce remuneration rates for treatments or services provided beyond the ceiling.

Ensuring that healthcare expenditure ceilings and sub-ceilings are realistic requires detailed technical work and mechanisms which protect against the tendency of government to unilaterally set funding too low for purely budgetary reasons. It is equally important that the fee or case payment rates which operate alongside the ceilings are realistic. In Germany, the system is designed in such a manner as to provide relatively clearly-defined mechanisms for the routine adjustment of the ceiling and reimbursement rates in line with key cost factors including the impact of technology. Ensuring that ceilings and reimbursement rates are set at realistic levels requires either or both formalised and meaningful consultation with the health service providers concerned, and independent price-setting mechanisms. Government cannot exercise this type of control in a unilateral top-down fashion.

The detailed work required within government to set ceilings and reimbursement rates is not something which can be done by the MOF. Only the health ministry and other specialist entities have the sectoral expertise required. It is therefore essential that the health ministry is fully on board with the objective of expenditure restraint.

The successful application of this type of system ultimately requires a highly interventionist and corporatist approach to controlling health expenditure. This is something which does not sit well with beliefs about the role of government vis-à-vis the private sector in all OECD countries. It is, for example, totally unimaginable in the United States.

This calls into question the very notion of setting ceilings for total healthcare expenditure in any country where government is unable or unwilling to intervene to this extent. If the enforcement mechanisms for any supposed sub-ceilings set for private sector healthcare providers are weak or non-existent, how can the government claim to be setting ceilings for total health expenditure? Under these circumstances, it is arguably better for government to confine itself to setting ceilings for total expenditure by government (or quasi-public) healthcare providers – although even then it must be prepared to work hard to make these operate effectively.

Annex 1.C provides further detail on the technical challenges which arise in the implementation of ceilings on healthcare expenditure, and the experience of selected countries in this respect.

Ceilings for social protection expenditure?

Is it perhaps less difficult to impose ceilings on welfare benefit expenditure? The most notable recent attempt to apply meaningful ceilings to welfare expenditure has been the British “welfare cap”, introduced in 2014. The welfare cap is a system under which multi-year fixed planning ceilings are applied to total spending on a large group of UK welfare benefits – with certain exclusions, the most important of which is unemployment benefits.²

The welfare cap comes, at least on paper, with an enforcement mechanism of sorts. This is a statutory requirement that, if projections for outer years show the cap being breached, the government is (subject to an escape mechanism) required to take measures – such as changing benefit entitlements – to bring projected spending back within the cap (Keep, 2020^[24]). There is, however, no sanction for actual breaches of the cap – i.e. for actual spending exceeding the cap in any given year.

Experience with the UK welfare cap makes it clear that, as with any healthcare expenditure ceiling, it is essential that the ceiling is set in a way which realistically takes account of baseline expenditure trends. High-quality forecasting is therefore a prerequisite. While not easy, this is significantly less difficult than in the case of healthcare spending.

Another crucial point underlined by UK experience is that the effectiveness of this mechanism is dependent upon the existence of a credible commitment on the part of the government to respond to prospective breaches of the ceiling by making advance changes to entitlement policy, even when these may be politically difficult or inconvenient.

The welfare cap has not worked well in the United Kingdom. The UK Office of Budget Responsibility concluded that “it is not clear that the welfare cap has any meaningful impact on spending plans and outcomes” (OBR, 2019^[25]). The main problem seems to have been precisely the lack of a credible commitment to make the cap work as intended. In practice, it appears never have had its intended effect of inducing the government to make entitlement policy changes in order to avoid prospective breaches of the cap. The Government has instead repeatedly invoked the escape mechanism. Thus when, in 2015 and 2016, prospective breaches of the ceiling were identified, the government’s response was, firstly, to make use of an escape clause (a motion in the House of Commons declaring the breach to be justified) and, secondly, to modify the design of the welfare cap in 2016 so as to make it less stringent.

This casts doubt on the value of setting ceilings for welfare expenditure. It may be more realistic to settle, in a medium-term budgeting framework, for projections for this important category of spending. If unemployment benefits are excluded, projections will at least tend to be more reliable than for healthcare expenditure. Nevertheless, even with the exclusion of unemployment benefits, the problem of uncertainty remains – particularly for outer-year projections. As discussed elsewhere (Robinson, 2016^[26]), there remains a non-trivial degree of uncertainty about expenditure on a number of other types of welfare benefits (e.g. housing benefits, sickness benefits) over the medium-term.

The future challenge of demand-driven expenditure

Given the scale of the fiscal challenge facing governments in the post-pandemic era, managing demand-driven expenditure will be more important than ever. With respect to social protection expenditure, the problem is principally political. Expenditure is almost entirely determined by prevailing entitlement policies, and can be managed effectively only by changing those policies. Moreover, the biggest long-term pressure in this area – the growth of age pension spending – is due to a demographic phenomenon which will not endure forever. (For most OECD countries, age pension spending pressure is projected to subside within the next couple of decades.)

Health is much more problematic, for two reasons. The first is that, as discussed, health spending cannot be managed by entitlements policy alone. The significant element of provider control over the volume and cost also needs to be reckoned with. The second problem is that the long-term trend of rising spending is, unlike age pensions, not principally demographically-driven, and cannot be expected to subside when demographic ageing slows down. Because the main force driving health spending is the expansion of the technological capabilities of medicine, there is no end in sight to the upward movement of spending.

In this context, government's objective cannot be to prevent health expenditure-to-GDP from rising. Rising spending is not only inevitable, but is in large measure desirable because of the benefits it will offer citizens. Government's objective should be to contain the rate of increase and to ensure that extra health spending is limited to what is required for their populations to benefit from technological progress, and does not translate into increasing levels of over-servicing, inefficiency and excessive provider remuneration.

This poses a major ongoing challenge for public budgeting. Broadly, governments would appear to have two main choices. The first is to take a highly interventionist approach to the management of health expenditure – including exerting tough controls over the levels of spending of independent physicians and other non-government healthcare providers. The second is to “wash their hands” of the problem and limit the increase in government spending by transferring an increasing portion of the burden of healthcare spending directly to patients.

Expenditure ceilings and fiscal consolidation

The challenges of managing uncertain demand-driven expenditure have important implications for the use of expenditure ceilings generally as a budgeting and fiscal policy instrument. In particular, they have implications for the use of medium-term aggregate expenditure ceilings as instrument for achieving fiscal consolidation and ensuring the continuing maintenance of fiscal sustainability – that is, as a means of either progressively reducing debt to safe levels, or preventing it from rising.

The use of aggregate expenditure ceilings for this purpose has great advantages, and has attracted growing support internationally. In Europe, there is a wide “consensus among policy economists” on the need “to focus on aggregate expenditure ceilings set to slowly reduce the debt ratios of over-indebted countries” (Bénassy-Quéré et al., 2019^[27]). This conception of the use of aggregate expenditure ceilings to achieve debt objectives has, in fact, been part of the European Union fiscal framework since 2011, in the form of the so-called “expenditure benchmark”. Now the push is on to extend their role so as to replace budget balance rules. Aggregate ceilings have also been used to achieve fiscal sustainability objectives in a number of other OECD countries. With the further jump in debt levels due to the pandemic, interest in the use of aggregate ceilings as an instrument for post-pandemic fiscal consolidation has intensified (Commission pour l'avenir des finances publiques, 2021^[28]; Francová et al., 2021^[29]; Martin, Pisani-Ferry and Ragot, 2021^[6]).

Where aggregate ceilings are to reduce or constrain debt levels, the coverage of the ceilings must be essentially comprehensive. Because it is the debt of the government as a whole which matters, the aggregate ceilings must cover all, or almost all, government expenditure (with only the most narrow

exclusions, such as interest and unemployment benefits). Expenditure ceilings which cover only budget expenditure are not sufficient for this purpose.

Experience in recent decades has, however, taught us that the successful implementation of aggregate ceilings is not a simple or straightforward matter. As with any fiscal rules or targets, there is the issue of political commitment. But there are also a number of major technical issues which must be faced when implementing aggregate ceilings. To work, the ceilings need to be translated into limitations on specific categories of spending. The question arises as to the best to operationalise the aggregate ceiling.

The dominant doctrine today is that the appropriate way of giving effect to medium-term aggregate ceilings is through medium-term sector or ministry ceilings (“sector” ceilings for short), i.e. specific ceilings for education expenditure, defence expenditure, social protection expenditure, health expenditure and other sector expenditure. Like the aggregate ceilings, these sector ceilings are set for the coming financial year and 2-3 outer years. The principle is that, together with a reserve, these sector ceilings should sum to the aggregate ceiling, i.e. they represent a sectoral allocation of the entire aggregate ceiling. As mentioned, when the intention is to use the aggregate ceiling as a tool to achieve fiscal consolidation, virtually every area of government expenditure must be covered by one or other of the sectoral ceilings. This view of the manner in which aggregate ceilings should be implemented is referred to in what follows as the medium-term sector ceilings model.

In the application of the medium-term sector ceilings model, the outer-year sector ceilings may in principle either be *hard* (unable to be changed after they have been set), or *indicative* (open to change when it comes time to prepare the budget for the year concerned). In the majority of countries which set medium-term sector ceilings they are indicative. The concept of an indicative ceiling is not, however, one of an amount which can be changed at whim. To be considered to be a ceiling, the indicative sector ceiling must provide a meaningful indication of the level of funding which the sector or ministry is likely to receive when the outer year concerned arrives. This means that the indicative outer-year ceiling should only be changed for limited and clearly-defined reasons. If, by contrast, so-called indicative ceilings have little or no influence on the ultimate budget allocations to the sectors concerned, they cannot truly be considered to be ceilings. They are simply numbers on paper.

This is the problem. Generally speaking, the medium-term sector ceilings doctrine has not been working very well, even in advanced countries with highly sophisticated budgeting systems. In many countries which purport to specify medium-term sector ceilings in their medium-term budget plans, the outer-year ceilings appear to have little practical impact on budget allocations or actual spending. If they have any impact on the preparation of the budget for the year concerned, it is only to serve as *de facto* starting points from which ministries try to bargain for more resources – in other words as floors rather than ceilings for sectoral expenditure.³

Is setting sector ceilings the best way of giving effect to medium-term aggregate ceilings?

Experience has made it clear that medium-term sector ceilings for health expenditure and social protection expenditure are particularly prone to being revised upwards and breached (again, setting aside the extreme circumstances of the pandemic). An example is Ireland during the post-GFC years, where the government adopted a system of aggregate expenditure ceilings and then decomposed the aggregate ceiling into sector ceilings. In practice, outer-year sector ceilings were repeatedly revised upwards, to the extent that the Irish Fiscal Council has commented that “the MTEF is not working in practice” and that “procyclical increases in the expenditure ceilings risk repeating the mistakes of the past” (IFAC, 2019_[30]).

These problems in making the model work are unsurprising given the inability of many countries to set meaningful ceilings for health spending and social protection expenditure. As discussed, when enforcement mechanisms are weak or non-existent, ceilings in these sectors will necessarily be ceilings only in name.

This has direct implications for ceilings in other sectors, such as defence and education, in a system which is constrained by aggregate expenditure ceilings. Because such a system is intrinsically zero-sum, the medium-term ceilings which are set for these other sectors depend on how much of the aggregate ceilings is taken up by health and social protection. When one sets, in year X , outer-year ceilings for these other sectors for years $X+1$, $X+2$ and $X+3$, these ceilings will be conditioned by expectations of what will be spent in those outer years on health and social protection. If, as time passes, it becomes clear that more will be spent on health and/or social protection than had been anticipated, it will be necessary to cut the ceilings for other sectors commensurately.

The only way of avoiding such offsetting cuts in other sector ceilings is to have built into the medium-term budget planning reserves (unallocated amounts) which are so large as to be able to absorb any overruns which might occur in health and/or social protection. This potentially requires very large planning reserves, as highlighted by experience in Sweden (even though in that country the reserves are required only to deal with welfare expenditure overruns, not those pertaining to health expenditure) (Robinson, 2016^[26]). Setting very large planning reserves would, however, require that all other sector ceilings be scaled back at the stage of medium-term planning, and is likely to create a tendency for the ceilings of those other sectors to be increased at a later stage through the allocation of the unused planning reserves.

In short, when the medium-term sector ceilings model is used to implement aggregate expenditure ceilings, uncertainty and limited control over health and social protection expenditure risk undermining the credibility of sector ceilings not only for those two sectors, but also for the other sectors.

Where does this leave governments which have been struggling to make systems of across-the-board medium-term sector ceilings work because of the level of uncertainty they face with respect to health and social protection expenditure? There would appear to be only two choices.

The first is to abandon the medium-term sectoral ceilings model. In other words, rather than trying to set outer-year “ceilings” for education, defence and other sectors which end up having little credibility, the government simply stops setting such outer-year sector ceilings.

Abandoning medium-term *sector* ceilings does not mean abandoning medium-term *aggregate* ceilings. The medium-term sectoral ceilings doctrine is not the only model of medium-term budgeting. The alternative approach is the medium-term estimates model, of which Australia is a good example. In this model, budgeting is framed around medium-term estimates of baseline expenditure, without medium-term sector ceilings being set. In other words, while the budget documents show estimates of what each ministry would spend in outer years assuming the continuation of existing policies, these outer-year estimates do not constitute ceilings – even indicative ceilings. While they reduce the degree of line ministry uncertainty about their future budget allocations, they provide absolutely no guarantees whatsoever.

Such a system provides at least as effective a means of implementing medium-term aggregate expenditure ceilings as the medium-term sector ceilings model – because in such a context discipline is provided by the simple requirement that the scope for new expenditure and tax measures is strictly limited to whatever fiscal space is available within the aggregate ceilings.

The other choice is to set sector ceilings only for the relatively controllable areas of government expenditure, with no ceilings (only estimates) for healthcare and social protection expenditure. If this were done, uncertainty in healthcare and social protection expenditure would need to be dealt with by some combination of two potential shock absorbers. The first would be the use of planning reserves, as discussed above. The second would be the changes to the aggregate ceilings themselves, underpinned by commensurate changes to revenues.

With respect to the use of planning reserves, it seems unrealistic to believe that these could be set at levels sufficiently large to cope with uncertainty with respect to *both* social protection and health expenditure.

With respect to adjustments to the aggregate ceiling, it might seem that increasing outer-year aggregate ceilings because, say, of health expenditure overruns would undermine the basic idea of medium-term aggregate ceilings. However, if the aggregate ceilings are set in order to implement a revenue-dependent expenditure rule (Annex 1.B) this could be considered acceptable.

All of this calls into question the proposition that setting medium-term sector ceilings for all areas of government expenditure is the best way of implementing aggregate expenditure ceilings.

Proponents of the model often claim that the deployment of medium-term sector ceilings can simultaneously assure compliance with aggregate fiscal policy objectives *and* provide certainty to ministries about future funding levels (World Bank, 2013^[31]). In reality, the impact of uncertain demand-driven expenditure means that there is a conflict between these two objectives, and that it is impossible to maximise line ministry budget certainty while at the same time maximising control of aggregate expenditure.

Before leaving this topic, it should be acknowledged that medium-term sectoral expenditure ceilings are not always employed as a mechanism for giving effect to aggregate expenditure ceilings. In certain countries with coalition governments, such as the Netherlands, a main function of medium-term sectoral ceilings is to give effect to agreements between coalition parties about the broad allocation of resources during the life of the government, so as to avoid damaging annual disputes about expenditure priorities. In such a context, the need to minimise uncertainty about future line ministry budget allocations is much more important than in countries with single party governments. Even in this context, however, the increased pressure to adhere to aggregate expenditure ceilings in the coming era may impose growing stress on the medium-term sector ceilings model.

Box 21. Implications for aggregate expenditure ceilings

The considerations outlined in the main text have implications for the design and implementation of aggregate expenditure ceilings. One is that the aggregate ceilings should be regarded as *planning* ceilings rather than as *execution* ceilings. A planning ceiling is a ceiling which is required to be respected during budget preparation – in the sense that all expenditure decisions must be consistent with estimated spending not exceeding the ceiling – but which entities are not absolutely prohibited from breaching during the course of the financial year concerned. An execution ceiling, as mentioned previously, is a limit that actual expenditure must respect.

Any attempt to enforce aggregate ceilings as execution ceilings would require either 1) the maintenance of impracticably large budget reserves; or 2) that any overruns in either or both healthcare spending and social protection be immediately – i.e. within the same financial year – compensated by cuts to other areas of government spending. The practical difficulties of making such offsetting cuts, and the destabilisation which they could create, would be considerable.

The only exceptions to this would be for government which do not have responsibility for both healthcare expenditure and social protection (e.g. national governments in countries where sub-national government has responsibility for either or both).

This bolsters the case which is being made by certain economists in Europe at present for the use of a “compensation account” mechanism to give force to aggregate ceilings (Bénassy-Quéré et al., 2018^[32]). This mechanism, inspired by the design of the Swiss and German “debt brakes”, is one in which any excess of actual spending over the aggregate ceiling is counted in a notional account, such that when the cumulative amounts in the account exceed a certain threshold government is required to take measures to *prospectively* reduce spending — that is, compensate for the overrun in *future* years.

These considerations also suggest that, even when aggregate expenditure ceilings are treated only as planning ceilings, it is not generally possible to set hard outer-year aggregate ceilings without taking firm control over healthcare expenditure. This, plus the pressure created by uncertainty and social protection expenditure, argues for outer-year aggregate expenditure ceilings to be indicative and to be set on a rolling rather than fixed-term basis. The proposal put forward by the European Fiscal Board (EFB, 2019^[33]) for fixed-term aggregate ceilings to be set at three years intervals therefore seems inappropriate. This is particularly true if, within the framework of revenue-dependent expenditure rule like that operating in Europe, it is considered appropriate to permit the adjustment of outer year aggregate ceilings in the light of new revenue measures.

Source: Author

Fiscal sustainability measures

Underlying much of the argument of this paper has been the proposition that, for a large number of OECD countries, debt is a major problem and a key long-term aim should be to restore fiscal sustainability by significantly reducing debt-to-GDP ratios. There are, however, some in the fiscal policy community who think that it is a mistake to focus on debt — not because they dispute the importance of fiscal sustainability, but because they believe that debt is not the best accounting measure in terms of which to assess and formulate policy for fiscal sustainability. They suggest that the focus should shift to other measures derived from public sector balance sheets — that is, from the statements of government assets and liabilities which are now a feature of government accounting in the many countries that have adopted accrual accounting. In the light of this, this section considers the relevance of balance sheet measures — and net worth in particular — for fiscal sustainability.

Debt and fiscal sustainability

Fiscal sustainability refers to government's capacity to meet its interest and other financial obligations without finding itself forced to implement wrenching budgetary adjustment measures (sudden major tax increases and/or severe cuts to government services or benefits), or finding that it is only able to avoid such measures through economically damaging stratagems such as debt repudiation or large-scale inflationary central bank financing of deficits.

Debt has always been viewed as the crucial fiscal variable of relevance to fiscal sustainability. This is for the obvious reason that the ability to meet interest obligations is at the very heart of sustainability. It has, however, long been recognised that the stock of government debt securities on issue — what is known as *gross debt* — is not the only thing which is important for fiscal sustainability. Fiscal economists have always been aware of the importance of other liabilities and financial assets.

The reason that financial assets matter is that they are, in essence, offsets against debt. For example, a government which owes USD 900 billion but which has USD 100 billion in its bank accounts would find the sustainability of its financial position essentially unchanged if it were to withdraw the USD 100 billion from the bank and use it to pay off debt so as to leave it owing USD 800 billion. On the liabilities side, liabilities such as bills payable to suppliers and pension obligations to government employees matter because they constitute “debt” in a broad sense.

Reflecting this, measures of government debt have historically often been adjusted to take into account some of these other liabilities and financial assets through the use of some variant of the concept of *net debt*. Net debt deducts from gross debt the government holding of cash/deposits and, sometimes, certain other financial assets. In the United States, for example, the net debt measure used by government

deducts the value of the government's portfolio of student loans.⁴ Some countries historically, under cash accounting regimes, went further and adjusted net debt on the liabilities side to count certain non-debt liabilities.

Quite a few OECD countries have in the past used some such variant of net debt as their *headline* debt measure – i.e. the measure in terms of which they formulated debt rules or targets. Many governments continue to do so today (Moretti and Youngberry, 2018^[34]).

What this makes clear is that the term “debt” has never been generally synonymous with gross debt, but has been widely used to refer to alternative measures, which are, to varying degrees, more comprehensive in their coverage of financial assets and non-debt liabilities. Fiscal policy architects have long wrestled with the thorny issue of which of the range of alternative possible debt measures are best to use for policy purposes. While the trickiest issue has been (and remains) the choice of the headline debt measure, attention has also been given to the question of which other debt measures to use as *ancillary indicators* – i.e. measures which are used for analytic purposes and inclusion in the budget documentation, but not for the formulation of rules and targets.

The advantage of accrual accounting in this context is that it has led to the production of regular balance sheets which cover a particularly wide set of liabilities and financial assets. If we apply the principle that all liabilities worsen the sustainability of public finances, and that all financial assets offset debt and improve sustainability, the difference between total liabilities recorded on the balance sheet and total financial assets may be viewed as a particularly comprehensive measure of debt. This measure (liabilities - financial assets) is referred to as net financial liabilities. It is, however, a concept which is more commonly deployed with its sign reversed (i.e. financial assets - liabilities), in which form it is known as *net financial worth* (NFW).

When viewed as a broad net debt measure, NFW counts as *de facto* debt not only a range of liabilities such as payables, but also even government employee pension liabilities (although the latter is a matter on which accounting practice varies between countries). On the assets side, it treats as offsets against debt not only cash/deposits but many other types of financial assets such as, for example, the value of government holdings of equities. Its comprehensiveness makes NFW a very useful debt measure. Whether it is the best choice as the headline measure is open to debate, but there can be no doubt that it is, at a minimum, a valuable ancillary indicator for fiscal policy analysis.

Reporting NFW is not the only way that accrual accounting supports fiscal sustainability analysis and policy. The regular reporting of government's contingent liabilities is also valuable. But none of this involves a shift in focus away from debt. Paying attention to contingent liabilities is an essential part of debt-focused fiscal risk analysis, for the obvious reason that contingent liabilities add to debt if and when they become actual liabilities (Moretti, Boucher and Giannini, 2021^[35]).

Net worth and fiscal sustainability

This brings us to the question of the fiscal policy relevance of *net worth*. There is a school of opinion which holds that the net worth (NW) should replace debt as the headline fiscal policy indicator. NW is equal to total assets minus total liabilities. Total assets comprise both financial assets and *non-financial assets*, which are things such as roads, bridges, land, public buildings and intangible assets like software systems. NW therefore equals NFW plus non-financial assets (or, expressed differently, net financial liabilities minus non-financial assets). What this means is that if we were to shift our focus from debt to NW, we would be using a measure which offsets against debt not only financial assets but also the balance sheet (“book”) value of the non-financial assets owned by general government.

Is it appropriate to treat non-financial assets as offsets against debt?

The reason why *financial* assets can be treated as offsets against debt is that they either generate income to meet interest obligations, or can be used to repay debt. By contrast, most government *non-financial* assets do not generate income. They are acquired for the non-financial benefits they generate for the community, and not for income-generation purposes. Moreover, most non-financial assets cannot in practice be sold — meaning that even if there were willing private buyers, government would never sell them. There are, of course, some non-financial asset holdings that generate income or that it would be politically feasible to sell (e.g. surplus real estate). These are, however, typically not a large portion of the overall portfolio of government non-financial assets.

If, hypothetically, all non-financial assets were recorded in government balance sheets at values based on income-generation or practical sale potential – what might be called their realistic *financial* value – it would arguably be appropriate to treat their book values as offsets against debt. NW would under such circumstances be a very useful fiscal sustainability indicator. Conceptual balance sheets developed by macroeconomists (e.g. Buiter and others), which are based exclusively on present values of financial flows, meet these criteria. However, the real-world public sector balance sheets developed by accountants and fiscal statisticians do not.

Accounting asset valuation practices are complex. However, in broad terms, it may be said that most non-financial assets in government balance sheet are valued on a basis which has little to do with their practical financial value. For a great many, their book value is broadly linked to cost rather than to income-generation or resale value. Some others have a book value which is based on a hypothetical market value, despite the fact that it is unimaginable that government would sell them. These valuation practices mean that the book value of many of the assets on government balance sheets is significantly exceeds any realistic financial value that they might have. This is true, for example, for schools and urban roads, both of which yield little or no revenue and could not conceivably be sold to pay off debt. Another example for which this is true of military assets, which have a large balance sheet value — even though governments would never sell their tanks, missiles and submarines even in the most severe financial crisis.

As a consequence, the total balance-sheet value of government non-financial assets is much larger than those assets' realistic financial value. This makes it inappropriate to treat non-financial assets as offsetting debt for fiscal sustainability purposes.

This problem is not solved by the special treatment accorded to narrowly-defined categories of “heritage” and similar assets in public sector balance sheets. It is true that, in the United States and certain other countries, heritage assets are excluded from the balance sheet. However, this still leaves most other non-financial assets on the balance sheet at book values with little relationship to revenue or resale value.⁵

Box 22. Putting non-financial assets to work in tough times

In a recent short piece, Buiter, Ball and Dett put forward a case for the use of NW as a key fiscal indicator based on the importance of putting public sector assets to work to earn revenue during tough fiscal times (Buiter, Ball and Dett, 2020^[36]). They argue that a focus on NW helps government to “sweat” their assets for revenue-raising purposes. As they put it, “insofar as public-sector assets like infrastructure add to the state’s ‘net worth’, they should be put to use generating new revenue flows”.

The desirability of making greater use of non-financial assets to raise additional revenue, where possible and appropriate, is something with which few would disagree. The problem with the Buiter, Ball and Dett argument is, however, that the extent to which non-financial assets “add” to NW – i.e. the value at which they are recorded in actual balance sheets – has in most cases little to do with revenue that they actually raise, let alone with the revenue that they might potentially raise. It is therefore not

obvious that balance sheets help governments to identify opportunities to increase the revenue flows from their non-financial assets. What are useful for this purpose are asset registers, which simply identify non-financial assets without valuing them.

Source: Author

It follows that, in the public sector context, NW is a fundamentally different concept from NFW, and cannot be viewed simply as a more comprehensive sustainability measure. It is a serious error to treat NW as a broad net debt concept (Network of Independent Fiscal Institutions, 2021, pp. 20-23^[37]).

Any decision to ditch debt rules and targets and replace them with rules or targets for NW would therefore constitute a significant step back for fiscal policy. It would make it possible for a government to take fiscal measures which, while they maintain or even increase NW, weaken fiscal sustainability. This is what would happen if a government were to embark upon a massive debt-financed capital expenditure programme which was primarily focused on physical assets that generate no income for government, and the resale value of which was much less than the cost of acquisition. Fiscal sustainability would suffer even if the assets concerned were of genuine benefit to the community.

The reasons why NW cannot take the place of debt as the focus of fiscal sustainability policy are precisely the same as the reasons, discussed in Section 2, why the golden rule cannot replace debt target or limits.

This analysis points, in summary, to three conclusions:

- Net worth – which is not a type of net debt measure — is not a good measure of fiscal sustainability.
- Debt remains the variable of the greatest importance to fiscal sustainability.
- Balance sheets do indeed provide an enhanced perspective on fiscal sustainability, but not because they offer a fiscal variable which is superior to debt. Rather, it is because, by providing broader measures of liabilities and financial assets, they offer more comprehensive measures of net debt.

None of this means that it is necessarily wrong for governments to set objectives for net worth. It simply means that net worth objectives only potentially make sense as instruments for achieving other fiscal policy objectives (such as intergenerational equity). If, moreover, governments do set objectives for net worth, this should be in addition to — not instead of — rules/targets for debt. It is unsurprising that most countries with net worth objectives do in fact combine them with ceilings or targets for debt.

Box 23. Empirical evidence for Net Worth (NW) as a sustainability indicator?

Certain proponents of the NW focus present what they consider to be empirical evidence for the pertinence of NW as a sustainability indicator. This is econometric analysis which they claim shows that that countries with a stronger NW position pay lower interest rates on their debt – from which they conclude that financial markets regard NW as a useful measure of the sustainability of government finances. However, correlation is not necessarily causation. The fact that countries with a stronger NW position pay low interest rates does not prove that financial markets pay attention to NW, or that the reason why they demand low interest rates is the fact that NW is higher. A plausible alternative hypothesis is that high NW is correlated with other factors (e.g. good governance and stable politics) to which the markets do pay attention.¹ Moreover, even if it were true that financial markets were paying significant attention to NW, the most that this would indicate is that NW has merit as an ancillary sustainability indicator. It would remain inappropriate to replace headline debt indicators with NW.

Another empirically-based argument which has been made for NW is that it provides a measure of the extent to which countries have fiscal flexibility when faced with a recession, and that countries with a “stronger balance sheet position” are consequently able to make a faster recovery from recessions. This claim was originally advanced by the IMF (IMF, 2018^[38]) and has since been cited approvingly by others (Buitier, Ball and Detter, 2020^[36]). Again, however, there is a problem of econometric methodology which supposedly buttresses these claims. This is regression analysis which examines the correlation between NW strength and fiscal flexibility. However, the question which should be asked is not whether NW is positively correlated with such “fiscal flexibility”, but whether it is more strongly correlated with fiscal flexibility than is NFW or some other measure of debt. Equivalently, the question is whether there is much correlation between the balance sheet value of non-financial assets and fiscal flexibility.

1. In econometric terminology, the potential problem with this analysis is what is referred to as “omitted-variable bias” – i.e. what looks like a link between NW and interest rates is in fact a causal link between interest rates and some other variables, not included in the analysis, which are correlated with NW.

Source: Author

Concluding comment

In the immediate wake of the pandemic, it has been easy to get the impression that the era of tight budgets lies in the past. There has, in many countries, been wide political and public support for significant increases in spending in a range of areas. On the fringes of the public debate, but exercising significant influence, are also those who denounce any preoccupation with fiscal sustainability as misguided ultra-liberalism.

The reality is very different. It is that, once the crisis is over, there will be a compelling need to exert even greater discipline over expenditure than in the past. Maintaining control over deficits will be particularly challenging given the magnitude of prospective spending pressures. Inherited structural deficits and the high levels of debt of many countries also make fiscal consolidation essential. Under these circumstances, it will be imperative to strengthen control over aggregate spending. It will also be necessary to strengthen mechanisms – including spending review – capable of identifying and implementing major reallocations from baseline expenditure to create fiscal space for new spending and to support fiscal consolidation.

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Annex 1.A. The Scope for Efficiency Savings

There is an influential body of economic literature which produces very large estimates of potential public sector efficiency savings. A representative example is a recent paper by Alfonso and Kazemi (2016^[39]) that claimed that the average OECD country could “have reduced the level of public expenditure by 26.8% and still achieved the same level of public performance.” The main analytic tool employed in this literature is what might be called *outcome-based data envelopment analysis* (DEA). Amongst the many other examples of this literature are Alfonso, Schuknecht and Tanzi (2005^[40]) and McKinsey Global Institute (2017^[41]).

Outcome-based DEA analysis bases its estimates of potential efficiency savings on international benchmarking of the outcomes (often erroneously referred to as “outputs”) achieved by governments for the money they spend. The reasoning can be illustrated by taking the example of school education. Suppose that Country A and Country B each spend the same amount per student on school education. However, Country B’s educational outcomes are twice those obtained in Country A – meaning, in concrete terms, that Country B’s school students obtain PISA scores for literacy, mathematical competence etc. that are double those of Country A. This is interpreted by proponents of outcome-based DEA analysis as showing that Country A’s school education system suffers from an “efficiency gap” of 50% relative to Country B – a gap which Country A’s government could close by taking appropriate efficiency measures. (Analysts in this tradition also use terms other than “efficiency gap,” but the concept is the same irrespective of the terminology used.) It would then supposedly be open to Country A to reap the benefits of such efficiency measures in either of two ways. The first option would be to dramatically improve educational outcomes while leaving expenditure unchanged. The second option would be to cut spending drastically — by 50% in this case — while leaving educational outcomes unchanged. The assumption is, in other words, that the so-called efficiency gap is a direct measure of the potential for painless savings.

There is, however, a logical flaw in this reasoning. This stems from the fact that the “efficiency gap” is a measure of comparative *cost-effectiveness*, and measures of comparative cost-effectiveness cannot be used to estimate the savings which could be achieved without sacrificing outcomes.

To see this, we need to go back to basic concepts. The distinction between efficiency and effectiveness is fundamental to all analysis of public performance. In this context, *efficiency* pertains to *outputs* per dollar spent. *Effectiveness*, on the other hand, concerns *outcomes* achieved per output. Because the so-called “efficiency gap” is a comparative measure of outcomes achieved per dollar, it is a composite measure which measures both relative efficiency *and* relative effectiveness. This is where cost-effectiveness enters the picture. Cost-effectiveness, in standard terminology, refers to outcomes achieved per dollar spent. This is why it can be said that, in precise terminology, the “efficiency gap” is a measure of comparative cost-effectiveness.

Cost-effectiveness can be increased either by improving efficiency or by increasing effectiveness. Improving efficiency means cutting the costs of delivering outputs (holding output quality constant), whereas improving effectiveness means improving output quality (i.e. improving the services government delivers so they achieve better outcomes). These are, in other words, the two channels by which any measured “efficiency gap” might be reduced.

To the extent that a so-called efficiency gap is due to inefficiency, it unambiguously provides a measure of potential savings. However – and this is the crucial point – to the extent that the efficiency gap reflects a deficiency of output quality – i.e. effectiveness – it cannot serve as a yardstick to measure the magnitude of savings available to government.

To illustrate why this is the case, let's assume that the school education efficiency gap of 50% between Country A and Country B is entirely due to shortfalls in the effectiveness of education in the former, and has nothing to do with efficiency properly defined. We are, in other words, assuming that the reasons why Country A's school kids achieve at only half the level of Country B's kids on PISA tests are to be found exclusively in output quality problems – such as badly-designed curricula, pedagogical methods far removed from best practice, and poor teaching – which result in Country A's students learning less for any given amount of classroom exposure. If this were the case, the measured efficiency gap would tell us that the country could, with appropriate measures to raise output quality, double average educational outcomes without increasing expenditure.

Under these circumstances it would, however, be an error in logic to interpret the 50% efficiency gap as meaning that, if Country A's government raised output quality to the extent required to close the efficiency gap completely, it would be able to reduce spending by 50% without sacrificing educational outcomes. There is absolutely no reason to assume that, even with such a dramatic improvement in the quality of teaching, it would be possible to cut the school day in half (e.g. with students only attending school in the morning) while maintaining the same (mediocre) educational outcomes as before. The output quality/quantity trade-off — in other words, the degree to which an improvement in output quality makes it possible to reduce output quantity without sacrificing outcomes — might be much less than that. It might conceivably be the case that, even with this improvement in quality, it would be impossible to cut the school day by more than, say, an hour without an appreciable deterioration in PISA scores.

The magnitude of the output quality/quantity trade-off is a purely empirical matter, and varies between different types of services. For some public services, there is no trade-off at all — in other words, improving output quality creates *zero* scope for reducing output quantity. This is true of some medical treatments. When a patient is rushed to hospital after experiencing heart failure, urgent treatment is imperative. The treatment they receive constitutes a single indivisible unit of output. The fact that the hospital concerned may have recently implemented changes in its treatment protocols which have doubled survival rates for this extremely serious condition does not mean that the patient can now be given only half a treatment. In this case, improving patient outcomes does not create any additional opportunities for efficiency savings.

In technical terms, the proponents of outcome-based DEA are making the entirely unwarranted assumption that the marginal rate of substitution between output quality and output quantity always has a value of one — i.e. that the two are perfect substitutes.

This is why it can be said that, to the extent that a so-called efficiency gap is due to failures on the effectiveness side, it cannot be used as a measure of the potential for savings. This is, as noted, not the case if the efficiency gap is the consequence exclusively of problems on the efficiency side. In other words, if the efficiency gap were entirely due to inefficiencies such as unduly low teaching loads, widespread teacher absenteeism (leading to the need to spend too much on substitute teachers), and poor procurement practices (resulting in the government paying too much for school infrastructure, equipment and textbooks), the gap would indeed directly measure potential savings.

There is no way of knowing the extent to which any measured “efficiency gap” between countries reflects differences in the effectiveness of their public services, and the extent to which it reflects differences in the efficiency with which those services are produced. It follows that the efficiency gap cannot be considered to be a measure of savings potential.⁶

As serious as this problem is, it is not the only major flaw in outcome-based DEA analysis. The other is the failure of efficiency gap measures to adequately take into account what are known as *external factors* — factors outside the control of government which affect the outcomes achieved by public services (Robinson, 2020^[12]).

The problem may be illustrated by taking the example of health. Here, the efficiency gap is calculated using international comparisons of health outcomes relative to government expenditure. To measure health outcomes, it typically uses variables such as average life expectancy. Simplifying, this means that if two countries spend the same on health, but average life expectancy is 20% less in country A than in country B, country A is deemed to suffer from an efficiency gap of 20%. Once again, this is interpreted as meaning that country A could either: 1) improve health outcomes by 25% for the same level of spending; or 2) cut spending by 20% while leaving outcomes untouched.

The problem is that average life expectancy in any country is affected by a range of things other than the health system. This includes external factors such as national lifestyle patterns (exercise, diet, etc.), the prevalence of smoking, alcohol consumption levels, and the rate of poverty. Devotees of outcome-based DEA are not entirely unaware of this problem, and much of the analytic work makes certain efforts to adjust for external factors. However, it is methodologically very difficult to adjust efficiency gap estimates to take external factors into account, and in practice this is – at best – done only to a very limited degree and in a very crude manner. The consequence is that estimated efficiency gaps are in general so heavily contaminated by external factors that they cannot be considered to be measures of the relative cost-effectiveness of government services. More often than not, the result will be to make efficiency gaps appear larger than they actually are. In health, for example, countries with the worst sets of external factors impacting on health outcomes will tend to be those showing the biggest efficiency gaps.

This is a major problem with all outcome-based DEA analysis. However, the problem is most extreme when this technique is applied to extremely “high level” outcomes which are particularly affected by external factors. For example, Alfonso and Kazemi (2016^[39]) purport to estimate efficiency gaps partly by comparing total government expenditure with comparative indicators of the outcomes *economic stability* and *economic performance* (using composite indicators based on measures of inflation, GDP growth, unemployment, etc.). Here, the proposition is that if there are two countries with the same levels of a government expenditure, one of which scores only half as well as the other on these indicators of economic stability and performance, that country would have the option of cutting its total government expenditure by 50% without adversely affecting economic stability and performance. This is transparently absurd given the extent to which economic stability and performance are influenced by factors outside the control of government.

The fundamental cause of these problems is the inappropriate application of data envelopment analysis to outcomes. This is an analytic technique which should only be applied to outputs. As mentioned at the outset, many of the analysts in this tradition fail even to make the distinction, and erroneously use the term “output” to refer to outcomes such as student learning achievements and improvements in patient health status.

This type of analysis is unfortunate because outlandishly exaggerated estimates of potential efficiency savings do not help in the struggle to improve public sector performance. To the contrary, they have the potential to seriously misdirect debate about the options available to governments to achieve fiscal consolidation in the post-pandemic era.

Annex 1.B. Aggregate expenditure ceilings, fiscal rules and targets

There is, as discussed in the main text, a widespread contemporary enthusiasm for aggregate expenditure ceilings as an instrument for fiscal consolidation and sustainability. The most straightforward model of this approach is one in which medium-term aggregate expenditure ceilings are set to achieve medium-term targets for debt reduction, that is, the ceiling-setting is “anchored” by a debt reduction target.

Aggregate expenditure ceilings are not only used to achieve medium-term fiscal targets such as debt reduction targets. They may also be used to give effect to expenditure rules, which may be intended to keep debt at manageable levels, or to prevent government getting “too” big. Annex Box 1.B.1 outlines the distinction between expenditure ceilings and expenditure rules.

Annex Box 1.B.1. Expenditure ceilings versus expenditure rules

An expenditure ceiling is a numerical limit set for certain components of government expenditure in a specific year (aggregate expenditure, budget expenditure, sector expenditure, etc.). An example is the of medium-term expenditure ceilings which were set for budgetary expenditure in France’s medium-term budget plan for 2018-2022, which stipulated that total budgetary expenditure (with certain exclusions) was not to exceed EUR 257.9 billion in 2018, EUR 259.5 billion in 2019, EUR 260.5 billion in 2020, EUR 262.5 billion in 2021 and EUR 264.5 billion in 2022. The ceilings imply a 1% real reduction in budgetary expenditure over the four-year period.

An expenditure rule is different, in that it is a constraint on expenditure formulated in general terms (usually as a formula) in such a manner as to be applicable to any year. The simplest example is a rule that government expenditure should never exceed 35% of GDP. To be implemented, expenditure rules need to be translated into concrete expenditure ceilings for specific years. Expenditure rules therefore require expenditure ceilings, but it is not necessary to have an expenditure rule in order to deploy expenditure ceilings.

Sources: (Robinson, 2013^[42]) and *Loi de Programmation des Finances Publiques 2018-22*, article 9.

The EU “expenditure benchmark” embodies both approaches – that is, it both uses ceilings to achieve debt-reduction targets, and also uses them to implement expenditure rules. The way this works is that, in the case of EU countries where debt is too high relative to the Maastricht criteria defined in the Stability and Growth pact (these days, most EU countries), the aggregate expenditure ceilings are intended to be anchored by medium-term debt reduction targets. By contrast, for EU countries where debt is already at safe levels and debt reduction is consequently not required, aggregate expenditure ceilings are intended to be set in conformity with an expenditure rule designed to prevent a debt problem from emerging (see Annex Box 1.B.2).

Annex Box 1.B.2. The EU approach to aggregate expenditure ceilings

Simplifying somewhat, the approach embodied in the EU “expenditure benchmark”, introduced with the so-called six-pack reforms of 2011 is as follows. Firstly, there is an expenditure rule, which should, at a minimum, be respected when setting aggregate expenditure ceilings. The rule is that aggregate expenditure (more precisely, “net primary expenditure” – see below) must not grow faster than ten-year average GDP growth. The assumption behind this rule is that revenue grows over the long-term at the same rate as GDP, so that the rule will prevent spending growing faster than revenue and thereby ensure that the structural budget balance does not deteriorate. In the case of countries which have debt levels which are considered to be safe (below 60% of GDP), this is the requirement which matters.

However, for countries, which have excessive debt levels, this rule is overridden by a tougher requirement derived from an obligation to set and achieve medium-term targets for debt reduction. This means that aggregate expenditure ceilings must be set somewhat lower than would be required by the rule, at levels which are sufficient to achieve the targets for reducing debt over each medium-term period. Where this is the case, it may be said that the aggregate ceilings are based on fiscal targets rather than fiscal rules.

The expenditure benchmark represents what could be called a revenue-dependent expenditure rule. This is because it provides that, if government increases taxes in such a way as to permanently raise tax revenues by, say, 2% of GDP, expenditure may be increased by the same amount. (Symmetrically, if structural revenues are reduced, the rule requires an equivalent reduction in aggregate expenditure.) By making the expenditure rule revenue-dependent in this manner, and excluding cyclical expenditure and interest from the aggregate expenditure measure and accounting for smoothed public investment, the European expenditure rule is conceptually equivalent to a structural primary budget balance rule. The idea is that it is more practical to achieve the objective for the budget balance through an expenditure rule than by directly targeting the structural budget balance, which is difficult to measure reliably. Making the expenditure rule revenue-dependent also allows nations to make their own choices about how big government should be, and should not be obstructed from decisions to expand or shrink the size of government – as long as such decisions do not sacrifice fiscal sustainability.

Source: Author.

Where aggregate ceilings are used as a tool for reducing debt levels or preventing them from rising, the coverage of the ceilings must be comprehensive. Expenditure ceilings which, for example, cover only budget expenditure are not sufficient for this purpose.

There are, however, two exceptions to this. One is purely cyclical expenditure – the key element of which is cyclically-induced fluctuations in unemployment benefits. Cyclical fluctuations in expenditure even out over time, and therefore do not affect the longer-term trajectory of debt. Moreover, nobody wishes to prevent this important expenditure-side automatic stabiliser from operating. The other exception is interest expenditure, which is largely uncontrollable and the exclusion of which enables a clearer focus on what can be controlled.

It is, by contrast, unacceptable to exclude capital expenditure from aggregate ceilings when these are being used to achieve fiscal consolidation or to maintain fiscal sustainability. To exclude capital expenditure would permit governments to run up any amounts of additional debt so long as it was used for investment purposes. But if capital expenditure is not excluded from the aggregate expenditure ceiling, we are left with the familiar problem of how to handle the irregularity of capital expenditure within ceilings. The best means

of dealing with this is, however, to adopt the EU approach, which is to use a multi-year smoothed measure of capital expenditure for the purposes of the aggregate expenditure measure.

An alternative approach to tackling the problem of the irregularity of capital expenditure is to apply the aggregate expenditure ceiling in accrual terms – i.e. to count depreciation rather than capital expenditure (Darvas, Martin and Ragot, 2018^[43]). Such an approach would, however, be misguided. This is because it is not possible to limit debt accumulation by limiting the depreciation expense, as depreciation is an accounting charge which arises only after the capital expenditure has already been undertaken (Robinson, 2009^[44]).

A final point concerns the way in which changes in revenue policy impact on aggregate expenditure ceilings. If aggregate expenditure ceilings are set to implement an expenditure rule which is entirely independent of revenue settings (such as a requirement that spending not exceed 35% of GDP), or to achieve a medium-term expenditure target (e.g. reduce spending by 1% in real terms), then any decisions to increase or lower taxes will have no impact on the ceilings. However, things are different if the aggregate expenditure ceilings are set to give effect to an expenditure rule which is *revenue-dependent*, like the EU expenditure benchmark. In the latter case, it should logically be possible to adjust aggregate expenditure ceilings if and when governments implement permanent increases or reductions in tax levels. For example, if in 2018 a government set an aggregate expenditure ceiling for 2020 at USD 20 trillion, but in 2019 implemented permanent tax increases which raised revenue by USD 1 trillion, it would be appropriate that the aggregate expenditure ceiling for 2020 be raised to USD 21 trillion.

Annex 1.C. Expenditure ceilings for healthcare

This annex provides more detail on the design and application of expenditure ceiling in the healthcare sector.

In relation to government expenditure for public hospitals, the most successful approach to implementing ceilings is by combining what the health finance literature refers to “global budgets” and case payments. What this means, in simplified terms, is that a hospital will be, on the one hand, given a budget allocation (global budget) of, say, USD 300 million. On the other hand, it will be reimbursed for the treatments it provides on a case payment basis (Annex Box 1.C.1). Once the hospital has delivered sufficient treatments to have “earned” the USD 300 million, any treatments it provides in excess of its budget will be remunerated at a drastically reduced rate. This gives the hospital a strong disincentive to breach its budget, while not banning it from doing so.

Annex Box 1.C.1. Case payment funding in healthcare

Case payment systems (often referred to as activity-based funding) are output-based payment systems under which hospitals or other treatment providers are reimbursed for the cases which they treat (so that the payment covers all services provided in the course of treating the case). It involves paying appropriately differentiated “prices” for each of the large range of case-types provided by the hospital. Simplifying, it means that when a hospital treats a patient who has suffered, say, non-ST segment elevation myocardial infarction, the hospital will be paid a single amount (e.g. EUR 4 000) to cover all of the services provided to the patient as part of the treatment. A different payment will be made for, say, the treatment of a stroke or an acute asthma attack. This may be contrasted with fee-for-service, under which each service provided in the course of the treatment of the patient is billed separately.

Source: Author

The combination of ceilings and case payments is widely used for the funding of public hospitals in OECD countries (Schwierz, 2016^[17]). However, to make an expenditure ceiling for the entire healthcare sector work, this is not sufficient. It is, as mentioned, necessary also to limit the expenditure of independent physicians and all other healthcare providers. Thus in Germany broadly the same mechanism is applied to individual independent physicians – if they exceed their practice ceiling, any further services which they provide are remunerated at a drastically reduced rate. In fact, the discipline is stronger than that: physician practices which significantly exceed their ceilings may be subjected to detailed audits to ascertain whether they have engaged in over-servicing, and such audits may bring reputation costs for the physicians concerned.

This sheds light on the problems which France and certain other countries have faced in implementing healthcare sector expenditure ceilings. The French system, like that in Germany, breaks the overall ceiling into a number of sub-ceilings for the major branches of the health system – approximately speaking, one for independent physicians, one for hospitals, and one for long-term care centres. The problem is that while the ceiling for hospitals is enforced by something broadly like the type of sanction referred to above, there is only a weak enforcement mechanism for the ceiling for independent physicians, who are remunerated on an open-ended fee-for-service basis without practice-specific ceilings. This makes the sub-ceiling for

independent physicians of limited effectiveness, and undermines the credibility of the ceiling for healthcare expenditure as a whole. This is a key reason why historically the ONDAM ceiling was frequently exceeded.

In more recent years, in an attempt to enforce the ONDAM ceiling more vigorously in a context of weak control over private provider healthcare expenditure, the government has made the public hospitals bear the burden of expenditure overruns elsewhere in the system. What it has done is to compensate for overruns in the sub-ceiling for physicians by making ad hoc cuts during the course of the financial year to the hospital sub-ceiling (Sénat, 2019^[45]). This has aggravated the acute financial pressure on public hospitals.

The legislation which introduced the “global cap” in New York State made provision for an enforcement mechanism whereby remuneration to private hospitals and physicians could be reduced, by discretionary decision of the Governor, in the event of the ceiling being exceeded. In practice, however, this power has never been invoked. Instead, the sole mechanism which New York has used to address prospective breaches of the ceilings has been efficiency measures. The way this works is that, if it is projected that the global cap will be breached in a future financial year, there is a statutory obligation to develop and put in place reform measures which will prevent this from happening. The development of these reform measures is the responsibility of the standing “Medicaid Redesign Team”, which has over the years developed a number of significant initiatives which have helped reduce expenditure growth. As useful as this mechanism has proven to be, it does not deal with the fundamental dilemma of controlling expenditure on the reimbursement of private healthcare providers in a system based on unconstrained fee-for-service or case payments.

The UK has had success in giving effect to medium-term ceilings on healthcare expenditure. But a key reason that healthcare expenditure has been much more amenable to control in the United Kingdom is that independent physicians are in that country remunerated primarily via a “capitation” payment system. Simplifying, this is a system under which the National Health Service funds physicians based on the number of patients in their practices, rather than for services provided or cases handled. This greatly reduces expenditure uncertainty, and drastically reduces the scope for physicians to increase their incomes by over-servicing.

A further lesson provided by international experience is that, in order for healthcare expenditure ceilings to work over the long haul, is also essential that the ceilings which are set are realistic. This means that the ceilings are based on a realistic estimate of the cost of delivering the health services to which citizens have a legal or de facto entitlement. To be realistic, healthcare expenditure ceilings have to take full account of trends in medical costs and demand, including the cost impact of the expanding technological “capabilities of medicine” and of an ageing society. This is essential, but no easy matter.

What happens when ceilings – whether for healthcare spending as a whole, or for specific branches such as public hospitals – are too low is a matter of public record in a number of countries. Under such circumstances, citizens are increasingly denied the services to which they are entitled and/or employee remuneration is squeezed in a manner which is ultimately unsustainable. Waiting lists grow, patients fill the hospital corridors, there are shortages of vital supplies and equipment, and doctors and nurses leave public employment. Patients may also be asked to bear an increasing portion of the cost of treatment, and may find that certain types of conditions for treatments are no longer covered (Battenburg, Kroneman and Sagan, 2015^[46]). There is, in this context, a difference between meeting healthcare expenditure ceilings in a strictly financial sense, and meeting them while sustainably delivering citizen timely, adequate and quality care.

The New York global cap provides an interesting case study in the setting unrealistic healthcare expenditure ceilings. As mentioned, the New York ceilings are set on the basis of a rule which limits the increase in expenditure to a rate reflecting past growth in treatment costs. Experience since the introduction of the rule shows that it does not work to limit spending in such a way as to take into account cost movements only, and to disregard the evolution of treatment volume. Greater-than-anticipated growth of

treatment volume has been the main factor behind repeated breaches of the New York ceiling in recent years. Even a programme of vigorous efficiency measures has been insufficient to keep spending within the ceilings. New York has, as a consequence, had recourse to egregious accounting-based manipulation in order to avoid formally reaching the ceiling. In several recent years, when expenditure has got close to exceeding the ceiling towards the end of the financial year, the State has simply deferred sufficient payments to the next financial year to ensure that the ceiling is not formally breached (taking advantage of a cash accounting measure of expenditure).

Experience thus suggests that it is impossible, over the long haul, to set healthcare expenditure ceilings which are arbitrarily low simply to pursue spending objectives which bear little relationship to the growth of demand.

Notes

¹ Conversely, if they spend less than their budget allocations, they run surpluses which they are typically permitted to retain for use in future years.

² Unemployment benefits are excluded not only because expenditure is particularly uncertain, but also because it is important for macroeconomic policy reasons to allow the unfettered play of this important expenditure-side automatic stabiliser.

³ In making these observations, we are of course not referring to the exceptional years of the pandemic, but to the experience of “normal” times in the years preceding the pandemic.

⁴ The amounts concerned are so large that the financial assets deducted from gross debt — “debt held by the public” in US terminology — have in recent years amounted to approximately 10% of the value of gross debt.

⁵ There are, moreover, many countries that do not exclude heritage assets from the balance sheet. The United Kingdom, for example, records them — approximately speaking — at historic cost.

⁶ It should also be noted that the term “efficiency savings” used in the main paper is also a hybrid, and actually refers to the potential for savings both from improving efficiency and from improving effectiveness. Although imprecise, this has the merit of aiding analytic clarity. In this terminology, therefore, what we are saying is that measured efficiency gaps are not necessarily measures of potential efficiency savings.

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